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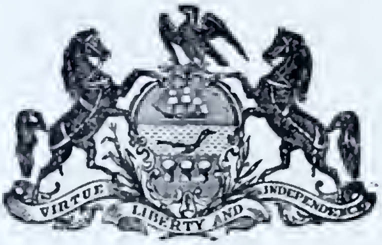

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# PENNSYLVANIA'S HEALTH

JANUARY—FEBRUARY, 1931

*Special Articles by* H. H. Keller, Mary Riggs Noble,
R. M. Alexander, A. J. Bohl

# Pennsylvania's Health

Official Journal of the Pennsylvania Department of Health

J. CLARENCE FUNK, Editor

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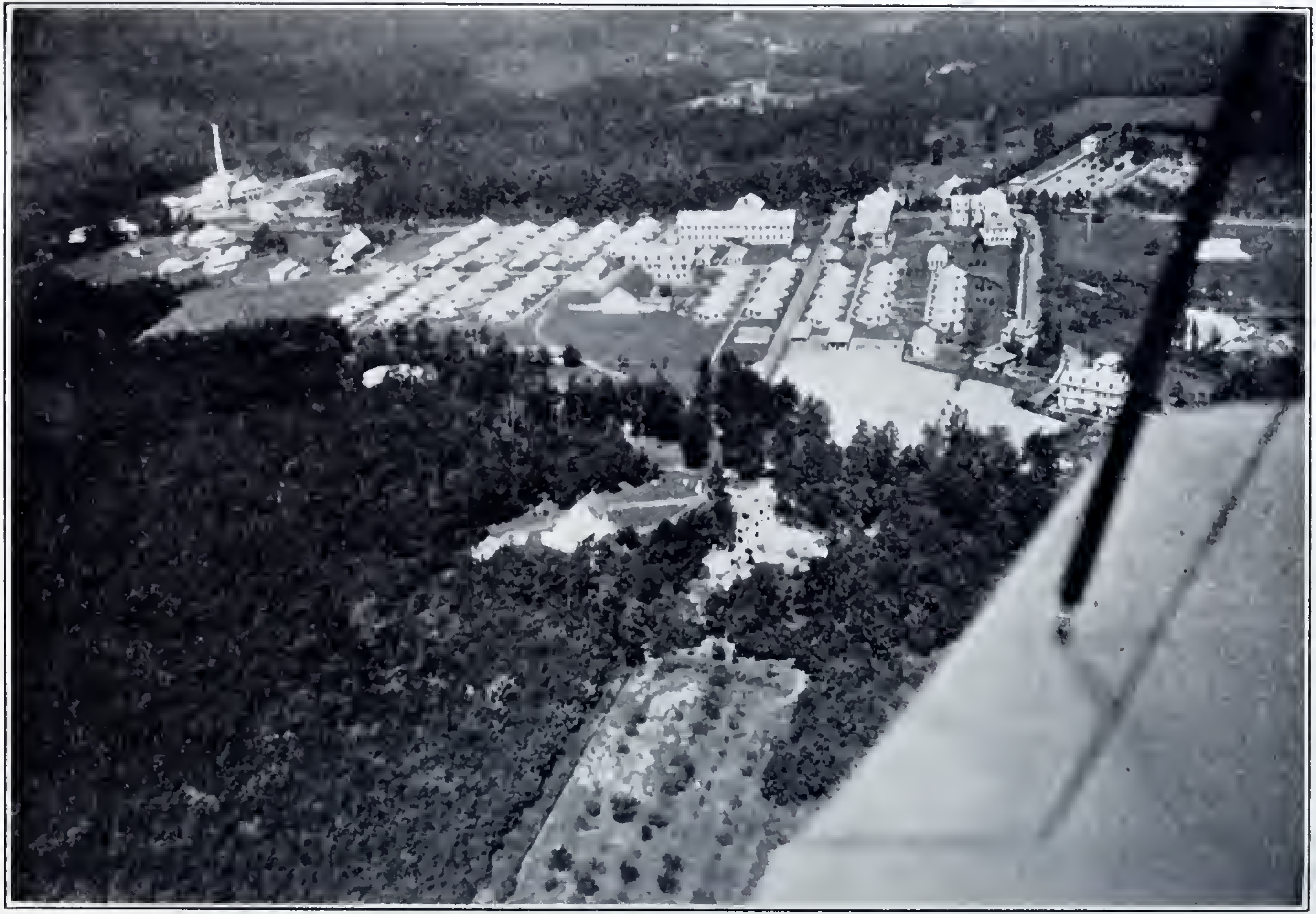

An Unusual Airplane View of the Mont Alto Tuberculosis Sanatorium

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PENNSYLVANIA

# Editorial

## FADS AND FANCIES

THE American public, up until the market crash, was notoriously free-spending. And this trait, perhaps more than any other one, was responsible for its amazing prosperity. By the same token, this grand old country of ours will again be on its feet with its chest proudly expanded, just as soon (and no sooner) as the people relax the tightened knot on their purse strings. It will perhaps matter little what they buy, so long as they put their hard earned and closely guarded coins into circulation once more.

At least one reservation should be made, however, to the anticipated and much hoped for spending activity. And this concerns itself with the vast amount of money that was formerly (and still is) squandered on the fads and fancies of health.

Many thousands of persons implicitly trusting the almightiness of the dollar have been led, through high-powered and irresistibly persuasive advertising pens, to believe that abundant health and prolonged usefulness are merely a question of buying this food or that food, using that and the other mechanical contrivance, or purchasing a brilliantly labeled bottle, the contents of which in some miraculous way will restore health or keep diseases away.

Unfortunately, the human body is not quite so susceptible to fairy tales and extravagant promises as is the brain that commands it. And the body just naturally suffers in consequence.

True, money will do a great many things in this work-a-day world. But it positively will not buy health. That commodity is purchased with a different type of coin.

The sooner the average citizen realizes that health and vitality call for conscientious and personal daily effort, the sooner many of the diseases now occupying top-line positions on the mortality and morbidity charts will lose their prominent places. But not one bit sooner.

Health demands a price. And the price is common sense. But, regrettably that is just what, in millions of instances, people do not apply.

One has but to read the reports of the billions of *additional* cigarettes inhaled annually, to study the woefully large increases in the consumption of coffee and stimulating drinks, to observe the average man and woman, boy and girl, habitually robbing themselves of sleep and outdoor exercise, and to note the indifference to incipient symptoms of killing diseases, to appreciate fully that common sense is about the last thing that many Americans consider to be essential to a full and abounding life.

Therefore, at this, the beginning of the new year, the slogan, "Buy Now" should be energetically applied both with respect to commodities and health. Cut the purse strings for the necessary and unnecessary things, and spend equally freely the coin of common sense by applying a personal regimen that will naturally, sanely and effectively improve mind and body. Therein lies prosperity for the nation and health for the individual.

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# SELLING HEALTH IN INDUSTRY

**Harold H. Keller**
*Medical Department Manager*
*The Bell Telephone Company of Pennsylvania*
*Philadelphia*

THE last decade has witnessed many noteworthy advances in public health work throughout the civilized world. Statistics show that one out of every three deaths among American citizens could be prevented if the utmost in intelligent health supervision and conservation were obtainable. American industries are now thoroughly alive to this fact. They realize that no other business in the world is larger or more important than that of keeping well, and that in order to bring this about it is essential for those engaged in industry to live health, talk health, think health and sell health—sell it by both example and precept.

## Medical Organization

Industries should make it one of their duties to sell health to their employees in order to help prevent illness and suffering. One of the first steps that should be taken to safeguard employees is to establish a well-organized medical department.

The medical organization of The Bell Telephone Company of Pennsylvania consists of a medical director, a medical department manager, and two medical offices, one at Philadelphia and one at Pittsburgh. At each medical office we have a medical officer, a medical office manager, examining physicians, a roentgenologist, nurses, nurse-technicians and clerical force.

In localities which are some distance from our medical offices, the medical work is carried on by general and local consultants. The term "general consultant" applies to surgeons, while a physician is called a "local consultant." The professional and personal qualifications of these doctors are considered in selecting them.

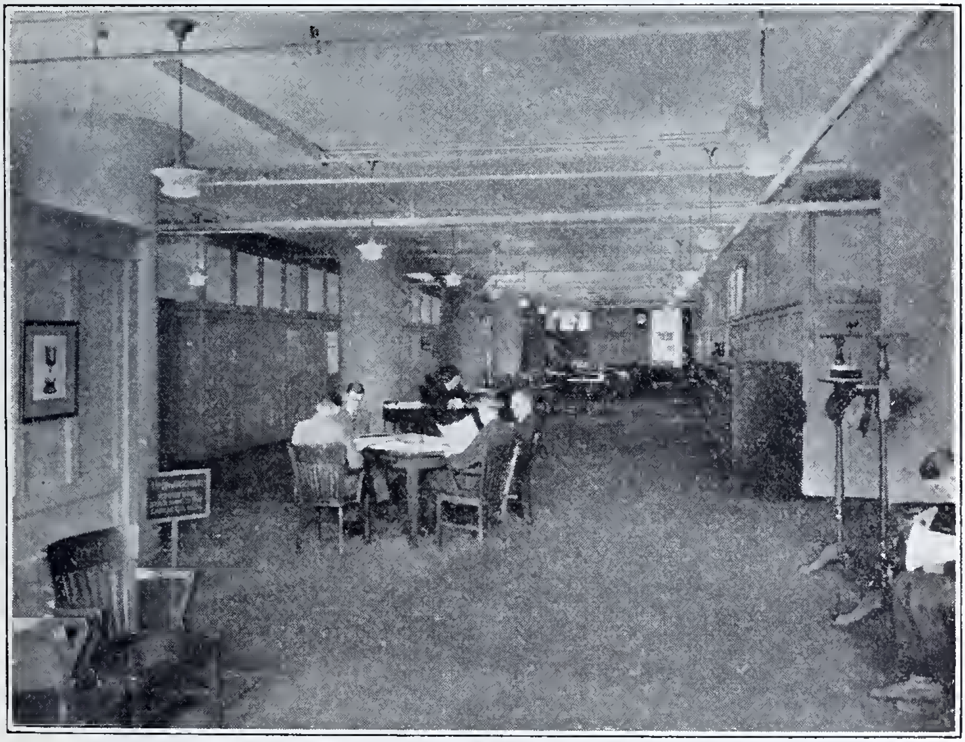
## Extent of Medical Work

The services performed, both in the medical offices and by consultants, include the examination of new employees; voluntary examinations of employees who have been absent due to illness or who are physically not up to par, as well as the observation and further examination of these employees; treatment of accidents arising out of and in the course of employment; treatment of emergency illness cases occurring in the offices; X-ray and fluoroscopic examinations, and laboratory work including sputum analyses, urinalyses, blood chemistry and kindred examinations. A large percentage of these special laboratory examinations are made by us at the request of employees' private physicians and are carried out free of all expense to them.

Only emergency treatment is rendered in sickness cases. If the patients are in need of continued treatment they are always referred to their private physicians.

The physicians in the medical office also take care of personal interviews with employees regarding themselves or members of their families, and hold telephone consultations with the private physicians of employees regarding their physical condition. These doctors work on a part-time basis of approximately three hours per day. Nurses and members of the clerical force are full-time employees.

Most of our examining physicians have their own private practices, are on the staffs of our hospitals, teach in medical colleges, or are specialists in internal medicine, surgery, eye work, ear, nose and throat work, or skin diseases. We have, therefore, a staff of skilled physicians, both men and women, and trained nurses, all of whom have been chosen with care.



**A Company's Medical Office is the First Step in Health Conservation**

One of the most important functions of our medical department has been to institute measures designed to preserve health and prevent illness. In passing, it should be stated that it never has been and it is not now contemplated that the medical department should usurp the functions of the private physicians of our employees. On the contrary, one of its chief aims is to cooperate to the fullest extent with the private physicians, even to the point of carrying out the more complicated diagnostic procedures whenever they are requested by the outside physicians. Wherever possible our medical department tries to function as a diagnostic clinic, not as a center for treatment. In short, it has become a coordinating agency between the employees and their physicians, endeavoring by every means to further the interests of public health in general.

Through the operation of our medical department we are able to advise new employees of physical defects which should be corrected before they develop into more serious conditions. Examinations of employees help prevent illnesses and aid in diagnosing physical conditions that may be corrected or treated to improve their health and possibly to avoid recurring attacks of the same condition.

**Knowledge of First-Aid is Essential and the Employees Get It**

## Other Functions of the Medical Department

Health surveys cover the examination of all employees in a given department to determine their present physical conditions, indicating to them their impairments, if they have any, and advising them to have these impairments corrected; also advising them to visit their private physicians and, through arrangements with them, having the corrections made. This survey, made to help employees improves their physical condition, helps to reduce the amount of time lost due to illness.

Sanitary surveys are made of our buildings from time to time, and cover proper lighting, heating, ventilation and sanitation.

All the food handlers in our cafeterias are given complete physical examinations annually.

Another important factor in the activities of the medical department are two "Rest Homes" for women employees who need rest, good food and a regular routine. One known as Cottage Green, is located on the outskirts of Philadelphia. The other, Fernhill, is about eighteen miles north of Pittsburgh.

When the physical condition of any of our female employees is such as to indicate the need for rest (as when convalescing from some operation or serious illness) she may go to the Rest Home upon the recommendation of the medical department and her private physician, where she is given the best of care and treatment under the supervision of an examining physician. An employee may be sent to the Home, also, as a preventive measure, or for a rest for some preliminary condition which it is thought will yield to this type of care and thus avoid development into more serious trouble.

Each Home is completely equipped for the care of convalescents and is under the superintendence of a hostess, who is a registered nurse, carefully selected and trained for that work. She is fully capable of sympathetically supervising the care and treatment of guests.

The Rest Homes are not sanatoria; rather they are places where regular living is the only treatment specified for the regaining of health. All employee guests at the Home are examined by a physician once a week, and they may leave only when the physician pronounces them well. Everything is done to make them feel at home, such as the showing of motion pictures one night a week, automobile rides, radio, victrola, piano, magazines, supervised games and hikes.

We have found through experience that the convalescent period of employees at these institutions is just about one-half what it is when they convalesce at their own homes. A nominal charge is made to employees for this service.

## Sanatoria

When employees are examined in either of our medical offices or by a local consultant and are found to be suffering from tuberculosis, they are advised to have sanatorium care. Every aid is given them by the Company to enable them to enter a sanatorium. Those who are financially able to pay a nominal weekly charge may go to one of the several private sanatoria. All assistance possible is given to have others admitted to one of the state sanatoria.

## General Health Course

In 1923, we established a course known as the General Health Course for Women, the object of which is to point out the more important ways leading to perfect health and touching on first-aid in both accident and sickness. The course covers the proper care of the body; diet and preparation of foods; mental attitude, proper clothing, care of the feet and teeth; prevention of disease; first-aid in sickness, such as colds, headaches and fainting; care of the sick—symptoms, medicines and disinfection; and first-aid in accidents.

This course is carried on each year with properly trained employees as instructors. Each class contains not more than twelve, and classes are held one hour per week for three months, on the employees' own time. At the completion of the course graduation exercises are held, when a health play is presented by members of the classes; and employees completing the course are presented with certificates.

The Health Play Concludes the Health Course. It is Tuneful, Entertaining and Instructive

We feel that this course gives the employees some of the fundamentals, at least, that go to make for good health, and in this way aids them to keep in better physical condition.

## Nutrition Course

Last year, we established what is known as the Nutrition Course for Women, which is open to graduates of the general health course. The nutrition course covers selection, preparation and serving of foods, and what goes to make a balanced diet.

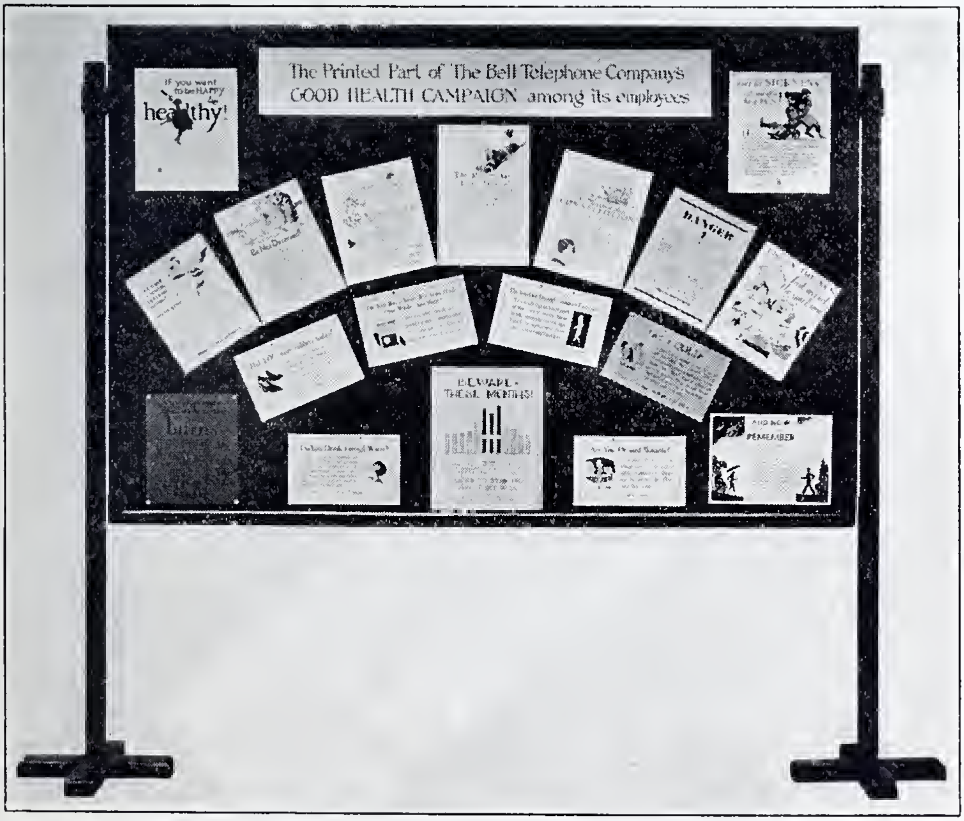
This course is conducted in the same manner as the general course and covers practically the same amount of time. The graduation exercises are combined with those of the general course, at which time the nutrition course graduates also receive certificates.

## First-Aid and Safety

Since its beginning in 1914, an active Safety and First-Aid Campaign has been carried on. All male employees in our construction, maintenance, installation, motor vehicles and buildings divisions are instructed in the fundamentals of first-aid each year. In addition to this, they receive instruction in the principles of good health, together with emergency remedies to apply in case of the more common ailments.

This work is carried on under the guidance of the plant safety supervisor by fifteen safety instructors in each of our four areas. These supervisors and instructors are continually observing the employees to make sure that safe methods are used in performing their work. Conferences are held by the supervisors a number of times each year, at which they discuss first-aid and safety methods, safety appliances, and allied subjects.

Employees are provided with all the safety appliances that are required in telephone work. Each office, each automobile and each employee who works alone is equipped with suitable first-aid kits. Through the earnest participation of all the employees in trying to perform their duties in a safe manner, the number of accidents has been very greatly reduced. In addition to this, they have used their knowledge to excellent advantage in rendering first-aid treatment to both employees and the public, meriting recognition by the American Red Cross.


The Printed Part of The Bell Telephone Company's
GOOD HEALTH CAMPAIGN among its employees
If you want to be HAPPY be healthy!
DANGER
BEWARE THESE MONTHS!
REMEMBER

**Stressing Health Through the Means of Attractive Bulletins is Most Effective**

## Health Education

Numerous forms of health education are carried on by means of health leaflets distributed through the medium of employees' pay envelopes and by the general distribution of small pamphlets covering such subjects as proper ventilation and helpful health hints. Each employee has received a small booklet entitled, "Good Health and How to Keep It," which enumerates first-aid treatments for many minor illnesses and includes a set of exercises and other health suggestions.

A health article appears in each issue of our company's monthly magazine, a copy of which is given to each employee. Health posters are issued from time to time for posting on the bulletin boards in the offices throughout our territory. Special health leaflets are issued at the time of epidemics, enumerating ways in which employees can help prevent the epidemic disease.

During the twelve years that the medical department has been in operation, it has been our aim constantly to enlarge the health program and widen its scope. Numerous studies that have been carried out by various departments of the Company lead us to believe that our efforts have not been futile; that not only have we reduced the time lost on account of sickness and accidents within our own Company but, by arousing in our employees an interest in health preservation and accident prevention, we have also been able to disseminate some of this information among the public in general. By these means, we believe that we are contributing something to the vital problem of preventive medicine and public health as it applies to the community at large.

# The Health Gnome Says —

Fads and fancies make for style,
  And make for money too;
Without their dictates and commands,
  The world would be quite blue.

And when it comes to clothes and such,
  They are in their proper sphere;
But when the body is concerned,
  Their price is then too dear.

A food for this and a food for that,
  A diet of mush or meat;
Make money for their sponsors,
  But do not make life more sweet.

Indeed, when all the truth is told
  Health fashions are a crime;
For in many, many instances,
  They cause death ahead of time.

So be old-fashioned regarding health
  Permit common sense to reign;
If you follow fads and die too soon,
  You'll have yourself to blame.

*J. C. F.*

# HEALTH WORK BY THE MOTOR UNITS IN THE SUMMER OF 1930

**Mary Riggs Noble, M. D.**
*Chief, Pre-School Section*
*Bureau of Child Health*

FOR six successive seasons the Department of Health has conducted itinerant health work for the benefit of infants and young children by sending fully equipped motor units through the rural sections of the Commonwealth.

In the summer of 1930, two cars were in operation, traveling from town to town on a fixed schedule through June, July and August. Five counties were thus visited, Erie, Cambria and Washington in the west, and Schuylkill and Cumberland in the east-central part of the state. Washington county had the distinction of having both cars at work inside its borders during the last week of the summer. As heretofore the staff for each unit consisted of two doctors, two dental hygienists and two nurses.

This year the cars were driven by medical students who, besides driving and being wholly responsible for the mechanical end, had also the special task of the vision-testing of the five- and six-year-olds.

It was the Department's good fortune to have the able assistance of Miss Evelyn Carpenter, supervisor of conservation of vision, State Council for the Blind, who generously gave time for instructing the two medical students in the latest methods used for vision-testing in young children. Both "drivers" were also given opportunity to make tests on groups of children in the day nurseries in Philadelphia. This meant that with such special preparation efficient work was done by them when they undertook to examine the eyes of the little people.

The personnel this year included some true and tried workers of former seasons. Dr. John D. Donnelly and Dr. Rose S. Reis each gave generous slices of time. Dr. Janet C. Ronaldson was detailed for the entire three months on the western car. Two new doctors, one for six weeks, Dr. Merkel, and one for ten weeks, Dr. Blampin, also rendered fine service. The four dental hygienists included three former workers, one having been with the Department every year since the beginning of this work.

This year for the first time a person was detailed to act as secretary. This was made possible through the generosity of the tuberculosis societies in two counties, Erie and Schuylkill. In Washington county the Red Cross loaned the Department a helper.

The addition of the services of this extra person lessened greatly the burden of clerical work which otherwise would have had to be borne either by the local committees or by the nurses. Moreover, one person, thus helping through an entire county, assures much more uniformity in registration and history taking.

To the uninitiated it should be explained precisely what the Health Car does in a community. Mothers bring their little children for a physical examination which the public at large is coming more and more to understand is a necessity for every human being. Such a health check-up made at sufficiently frequent intervals discloses any defective working of the body machinery which, if unremedied, might become a menace to the best health.

The summer of 1930 was no exception to the experience in other years in that almost invariably more applicants appeared for examination than the staff could reasonably accommodate. In Schuylkill county especially it proved an almost impossible task to keep the number of little folks down to the limits each staff could manage. The hardworking local committees with commendable zeal gave thorough publicity to the car visits.

**These Tots were Among the Thousands Fortunate Enough to Receive Health Car Attention**

Each unit of workers has the usual working day from nine to five with a short "noon hour." Headquarters, always within the county concerned, are maintained with as little change as possible. To keep the day's appointments means drives in the early morning, often with very early starts.

The examinations by the health units are sufficiently detailed to discover defects and conditions which, if not caught in an incipient stage, might lead to later trouble. Exact diagnosis with all the minutiae of pains-taking work over details cannot be undertaken. Gross lesions and threats of harm do not escape the examiners. The attempt is thus made only to discover the children needing immediate attention and, in general, to instruct mothers in the kind of care the child should have. Where physical defects are found the mother is told to take the child immediately to the family physician as no medical advice or treatment is given by the staff. In fact, the Department's part is to hunt for trouble which is intended to save many a child from the handicap of neglected defects.

Six years of this work have resulted in a mass of general information about the pre-school children and the parents of the rural sections. Most parents honestly want to do what ought to be done. Old inherited ideas as to food and sleep are not easily uprooted, and what the child "likes" to eat is still the determining factor at meal time in too many thousands of homes. However, a noticeable gain is seen in the number of young mothers who have an inkling that there are modern methods which ought to be understood, and who are honestly trying to secure and apply up-to-date knowledge in child care. For example, the danger in wrongly managed artificial feeding and the harm that wrong clothing may do, seem on the way to being understood. Too long days and the consequently too few hours of sleep, and too little realization of the modern understanding of "behavior problems" are woefully prevalent, but the idea of the newer child management with all its implications is surely taking root and growing.

Many and varied agencies are placing the up-to-date knowledge of physical care and mental hygiene within the reach of parents the world around. By written and spoken word, through radio, daily press and monthly magazines and a multiplicity of clinics, of conferences and what not—by all these means parents are preached to and coached and coaxed into a sounder attitude in bringing up their offspring.

The results of the car conferences show a big job done, or shall we say begun. By far the larger end of the task is still left to be finished; for what follows in the wake of the visits is vastly more important for the ends we are seeking than the actual day's work in any one town.

The local lay committees, state, Red Cross and community nurses and tuberculosis workers, all have an enormous burden of responsibility in the follow-up. Happily many parents set about securing defect correction at once without more pressure, but follow-up calls are needed to persuade the apathetic and speed the procrastinating.

A total of 8,189 children were examined by the doctors, 6,621 had their teeth cleaned; 3,426 children were referred for needed treatment to their family physicians; 29,188 cavities were found in 4,182 mouths thus generating a tremendous amount of work for the dentists whom these mothers were pressed to consult.

All told, 12,188 defects were discovered exclusive of dental caries, a very large proportion of them as always, being connected with the nose and throat.

Surprisingly few cases were brought to the car with deformities and paralysis. This might be explained either because the Crippled Children's Society had so thoroughly canvassed the territory for little ones needing such attention, or that there was a better understanding than has sometimes been the case of the fact that these particular children are not among those especially invited for the health car conferences.

The Department is always under a great debt of gratitude to the organizations who cooperate so splendidly with it in this summer work. The doctors who have endorsed the car-visit through official action in their county medical societies have always shown very friendly cooperation, and the Department always welcomes the visits from the members of the local profession who drop in to see the car's personnel in action.

A Typical Health Car Group

The hard work of all lay committees, the private philanthropic agencies before mentioned, the Red Cross, tuberculosis societies and community welfare nurses are among those to whom gratitude must be expressed. Just so long as the Department of Health receives from such agencies and from so many local individuals the hearty support in carrying out its work, so long will the efforts made to carry health to the Commonwealth be sure of achievements of which it need not be ashamed.

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# PERIODIC HEALTH EXAMINATIONS*

## Robert M. Alexander, M. D.

HEALTH examinations were advised in England a little over fifty years ago. In 1900, Doctor George M. Gould, of Philadelphia, read a paper before the American Medical Association advocating in specific terms this matter of periodic health examinations. He stressed the things which we would stress today. He said, among other things, "All good medicine tends inevitably to become preventive medicine. All good physicians labor to stop disease before it occurs."

For several years the medical and lay journals, the daily papers and magazines, the public health associations, The Gorgas Memorial Association, the anti-tuberculosis societies, the radio and the silver screen have been emphasizing the practicability of health examinations.

Why then is not more of it being done? The idea is sold to the public. If you should ask the next ten people you should meet if they believed in periodic health examinations, the answer would invariably be "yes."

In this connection I want to recite my own experiences in this work. About four or five years ago I became sold on the idea that the periodic health examination was a good thing for my patients, so I put up a sign in my office—"Health Examinations." I took the examination blank of the American Medical Association, the blank of the State Association and that of the Life Extension Institute and made up a blank of my own under my own name. I was then prepared to make health examinations. I felt that $5.00 would be enough to charge people who had nothing perceptibly the matter with them, and thought it was probably all they would pay. I did an occasional examination, and since an examination took about an hour and a half, I found I wasn't making enough money to pay for my time, so I did as few as possible. I am speaking now as an average medical man who is not used to big fees.

Last October a year ago, I decided I wasn't a very good obstetrician. Anyhow, it seemed that every mother who was to have an abnormal birth chose me. So I began to think of ways and means to obtain the revenue I would lose from my obstetrical practice. So I decided once more on health examining. This time I decided to charge $10.00 for an examination and do it in my spare time, and especially in dull seasons. So I put my sign up again. This time I put one up which read "Health Examinations and Health Service." By health service I meant that I would keep a record and call my patients yearly for an examination. I also decided to have a six months' service with a blood count once a year, and a urinalysis every three months; and for all this I would charge $25.00.

Patients who came in asked what the sign meant, and I told them. And then and there I signed them up for some form of periodic health examination. At first I did them in spare time. Then these people began to tell their friends with the result that I actually have more examinations than I can accomplish, and have taken down my sign At the present time I have 60 people who take examinations twice a year, with enough of the once a year variety to give me from one to three examinations a day.

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* Address delivered before the annual meeting of the Pennsylvania Public Health Association, at Altoona, Pa.

I have recited this to tell you that it can be done. Not to tell you how you should do it, but how I do it. To show you that unless you sell a service, it is difficult to keep the clients coming.

I have obtained from the American Medical Association pamphlets reprinted from Hygeia, such as "How to Live," "The Rules of the Game," "Obesity," "Exercises for Business Men" and "Exercises for Business Women." Where they are indicated I give out these pamphlets; and I might state that where these pamphlets are used for health examination service, the American Medical Association gives special rates.

## Reports

What about reports? I have learned not to give out written reports. If you gave a report in writing that a man didn't like, he soon found someone to disagree with you. A written report of a physical defect is not good company in one's pocket; and there again, I felt a fifteen minute talk after the examination to my examinee in language that could be understood was more valuable than something on paper which looked bad, but which my patient did not fully comprehend.

Now, how about the examination? What should it include? It should include every phase of a man's activities. His food, his worries, his habits, his diseases, his exercise, and his recreation.

If you examine a fat man or a thin man you should know that fats are twice as fattening as any other food; that vegetables average five and ten per cent in food value, and 85 and 95 per cent of them pass through the intestinal canal as bulk. That the average man weighing 150 pounds needs about 50 grams of protein per day, represented by a piece of lean meat the size of your hand from the finger tips to the carpal bones, and a half-inch thick.

Sleep: A man who doesn't sleep well has something wrong somewhere.

Recreation: This is probably the hardest part of my work. To get people to exercise. What are the best exercises for the average business man? In my opinion exercise for the man over forty should be mild and should also provide recreation. These are best provided, I have found, by golf and horseback riding. It would be foolish to tell the man who has worked all day in a machine shop to take exercise. I advise him to get recreation without exercise. Motoring, motion pictures, etc.

Work is gone into. Also past diseases and any resultant defect or symptom. In other words I go into my patient's life from every viewpoint, and I usually spend fifteen to thirty minutes talking to him before the examination.

## The Examination in Detail

He is examined for underweight and overweight. Temperature is taken. Sight and hearing are tested. Then I examine his nose and throat and teeth; and if indicated, I send him to a nose and throat specialist for straightening a deflected septum that is interfering with breathing, also for tonsils that are diseased and for sinuses that are suspicious. His pulse is taken before and after exercise to determine vascular disease. His blood pressure is investigated, and if it is too high, he is not exercised. His heart and lungs are then carefully examined as well as his stomach and abdomen. Incipient hernia is looked for followed by a prostatic examination. His reflexes are gone into. His spine and feet are examined. His lymphatic and thyroid glands are examined. The urine also. In short, I try to miss nothing. Then my patient and I again go into a closed session. His case is talked over with him, and he is advised as to what course to pursue. Undetermined conditions are finally diagnosed, or treatment is advised, or he is referred to a suitable specialist if this is indicated; and in this, I refer him to the best men in their line whom I know. To me, the examination develops a personal responsibility, and I spare no effort to get my patient into the proper hands. One who does much health examining has a lot of referred work.

The results are more than gratifying. I want to mention one or two cases. A young man, much overweight, took an examination. I found he was making a practice of drinking a lot of beer daily, and that he took no exercise. His urine contained hyaline and granular casts and his blood pressure was well above normal. He was advised to correct his habits; how to eat, and to get regular daily exercise. I did not see him again for six months. I failed to recognize him as the pale flabby man I had seen previously. He had lost 25 pounds. His color was good. His blood pressure was normal, and his urine was normal. He was cured by a little advice. And he was able to keep his teeth and his tonsils.

A second case: A prominent young lawyer came to me for examination. I found he was working long hours, that he was underweight, and that he was nervous and irritable. On examination, I discovered that his tonsils were diseased, so I advised him to have them out, and cut down on his long hours of work. Since he did not want to play golf I had him buy a horse. When I saw him again in six months, he had gained 10 pounds. He was no longer nervous and irritable, and was beginning to get some joy out of life. He had been saved from a nervous breakdown.

These are simply examples of what periodic examinations will do for the average man. Frequently I find the urine loaded with pus, and the man feeling out of sorts, not knowing what is the matter with him. He has had pyelitis and didn't know it.

Periodical health examinations offer to your patients a guarantee to continued health—correction of defects if they are found. They receive periodical health talks that pertain to them individually, by one who is familiar with their physical condition. Their mind is set at rest concerning imaginary ills, which most people have. They receive the cheapest form of life insurance obtainable.

The physician is enabled to fill in his dull seasons with work that is enjoyable, and which pays him a reasonable stipend for the time required. His professional skill is increased in that he learns to recognize disease in its inception.

Health examinations practiced routinely will do more for legitimate medicine than all the laws that can be placed on the statute books.

## "RESOLVED THAT—"

### A. J. Bohl

*Supervisor of Health Officers*

TODAY, as in every age, the man who has accumulated a fortune is on the top of the heap, the top rung of the ladder. He is envied because of the power of his wealth. No matter what happens, whether or not hard times come along, he is secure. He always has enough to eat, has good clothes to wear, and has his taxes paid, or, at least, has enough to pay them with. His wealth is a great power, but it is only by reason of the fact that other people are poor in this world's goods.

Suppose that every one had a million dollars given to him, or even a tenth of that sum, "a hundred grand," in the parlance of the underworld. That would automatically relieve all economic worries, would it not? Yes, it would not! What would happen, do you think? Wouldn't everybody quit work, the factory men lay down their tools, the farmers abandon their plows, the railroad men take an indefinite furlough? Sure they would. And in a short time your dollars wouldn't be worth that many pennies, because you couldn't obtain anything in return for them. You'd just naturally starve to death—a rich man.

But listen, there are other forms of wealth. And there is one particular form of it that you can spend and spend and spend, if you do it wisely, and still have it. Just like the magic pocketbook of the fairy tale, that was always full of gold no matter how much was taken out.

This wealth is a treasure, indeed. A mountain of gold, a river of diamonds, wouldn't compare with it. Its name is *health*. Good, glorious, golden, riotous health. Peppy health, that snaps you out of bed in the cold, gray dawn wide awake as soon as your feet hit the deck. Enduring health, that keeps you fit for a hard day's work, or an equally hard day's play. Boy, there's nothing like it; and all the frog skins on earth can't buy it for you, or return it after it has been lost.

Right in your old home town, no doubt, there's a man who at one time was a famous athlete. Maybe not nationally famous, but he may have been a good football player, or a tennis player, or a swimmer. Whatever he was, he was good. He had strong calves, shapely, muscular legs, a slim waist, deep chest and good wide shoulders. His arms were long and strong, and he had a husky muscular neck. In so many words, he was a man. And he was, perhaps, twenty or twenty-five years old.

Today, he is forty-five or fifty. And look at him, look at the ruin he is, just a shell, just a—oh, any one of the synonyms men use in describing a wreck of a man.

He has a tremendous tummy, and flat feet. He wheezes and pants when he has to climb a few steps. His digestion is simply shot to pieces, and his liver and heart—well, don't let us talk about them. It's too horrendous to contemplate with equanimity. Anyhow, you look at him.

Now, why is he like this? Why, in twenty years, should a magnificently built man, in the best of health, degenerate to such a degree? Habits. That's the answer. And bad habits, at that. He eats too much, smokes too much, drinks too much alcohol, neglects his sleep, utterly forgets his exercise, and all in all behaves not in the least as a rational human being should behave.

His recreation is poker, instead of swimming, poker with its concomitant vices of smoking, drinking, and loss of sleep. His alimentation is rich and indigestible, instead of the simple and nourishing grub of the training table. His exercise is taken sitting down, at his desk, his dinner table and in his car. He's in sweet shape, he is. And it is all a bad habit. Probably it is too late for him to break away, and in five or ten years more that heart will crack up and off he'll go.

**Strong Men Can Become Slaves Like This One**

"It's too bad," you say, "but what can I do about it?" Well, you can't do anything about it, young fella, but you can do something about YOU. You watch this poor wreck going by, perhaps in a five thousand dollar car, in which case you envy him, or if he's poor you pity him. Anyhow, you say to your pal, "Well, Benny was a good man in his day," and he says back, "Yeah, but he's shot now. Too much booze." And the both of you let it go at that.

Listen, buddy, how many cigarettes do you smoke? How much sleep do you get, and how much exercise? What sort of food do you eat? And does the local bootlegger wave a familiar greeting to you when he sees you?

Did you ever sort of project your thoughts into the future, sort of wonder what you will be twenty-five years from now? Wonder if you'll be rich, or poor, or just average? The bank people will tell you just what your chances are, just how many men out of a hundred will be rich at sixty, and how many will be in the poor house, and how many will be dependent on their relatives.

Suppose you sit down, right now, and think about your health, twenty-five years from now. Will you be dead, will you be sick and ailing, unable to enjoy your life and what money you have managed to accumulate, or will you be a husky, vigorous, smiling old party, full of pep, able to eat and digest what you may have on your table, whether it's porterhouse steak and caviar or just plain sourkrout and pork? Let me tell you that this is more important than how much cash you'll have on hand.

Listen again. There is a time worn custom, along about the first of the year, of making New Year's resolutions. I know it's the bunk, but it doesn't have to be. How about making yourself a set of resolutions something like this?

I'll cut out the alcohol.

I'll reduce my consumption of tobacco.

I'll watch my food intake, and try to eat foods that are really good for me, not just because they taste good.

I'll get eight hours sleep every night, at least, with plenty of fresh air in my room.

I'll get me some exercise, every day.

Make 'em, and try 'em out for a month. You can do it, and after that first month there's nothing to it. You have an entirely new set of habits. It's easy. And, oh boy, how it pays!

# TETANUS CASE REPORTS

## J. McCrea Dickson, M. D.

THE report of ten cases of tetanus, six of whom recovered, is a very small series, so that I hesitate to report them. This series of 60 per cent recovery, however, should possibly be rated at 80 per cent, for one of them had active tetanus three days, and the other five days before admission to the hospital. Realizing, however, that it may start a controversy and a collection of statistics from other sources, I am glad to make this rather summary contribution.

In no case was there any doubt of diagnosis, the patients ranging from four to fifty-two years in age. All were males. All had received wounds but one, and that patient developed tetanus after severely freezing his feet in a snow storm, and he alone of the series had a prophylactic dose of tetanus antitoxin at the time of amputation.

The most interesting phase of the wound treatment, to me, has been the lack of wide open drainage provided after the injury, and the faith that seems to persist regarding simple cauterization of the wound, or the application of an ointment.

If the profession generally should insist upon wide opening of the incision with thorough cleansing of the depths, not with an escharotic or cauterizing antiseptic, but with a non-charring, mild oxidizing agent, we should, in my opinion hear of many less cases than we do now. The maintenance of continued wide drainage in the average puncture wound for at least three to four days and the routine administration of tetanus antitoxin, should leave little to fear.

We still find many physicians who fear the anaphylactic shock we have all been warned against. In fifteen years, having used the antitoxin routinely for all dirt wounds, I have not seen one case of anaphylaxis. Many however did present the "serum sickness" within twenty-four hours to a ten days' period—urticaria, nausea and moderate shock.

A few precautions have been insisted upon in every case. The presence of a heart lesion, a history of asthma or hayfever, and the administration of an antitoxin a short while previous to the present injury, have been indications for divided doses, or, no serum. In such cases it is wise to inject one minum, wait a half hour, and proceed with the remainder of the 1,500 units if no shock develops.

As a further precaution, no case is allowed to leave the clinic until 30 minutes following the injection and have shown no symptoms. Then the patients are urged to rest, eat sparingly and drink plenty of orange juice, also to take a saline cathartic the following morning. These precautions are perhaps needless, but certainly have done no harm, and have seemed helpful. In protracted infections of deep wounds, it is my habit to repeat the prophylactic dose every ten days, using divided doses.

Regarding the curative dosage, I can only give my impressions, until other observations and results are forthcoming. The intraspinous injection seems to me to produce such profound shock, that I have discarded it in favor of the intravenous, the intramuscular and the hypodermic routes, using 30,000 to 50,000 units or more according to the age and size of the patient, and repeating every 8–12 hours until at least 100,000 units have been given, though two or more hundred thousand units should be used if necessary. The amount used should depend entirely upon the progress toward recovery. Adrenalin and ephedrin are kept ready for immediate injection if necessity should arise, but there has been little need for these.

The usual mandates prescribing a quiet, warm room, well ventilated, and away from the main corridors are followed. Nourishment is difficult, but warm, non-iced liquids are pushed. The intestinal tract is kept free from toxic material by salines every second day. Until the severe early stages have abated, morphine is given freely to physiological limit. Later luminol is used in sufficient doses to secure quiet, but not in conjunction with morphine. Chloral often suffices.

Upon admission the patient is quieted with morphine, while the serum is secured for injection and preparations made to incise or excise the wound, for this must be laid wide open after full narcosis, though excision is best, where possible, creating a crater to drain.

Then if a robust adult, I would suggest 50,000 intravenously, and 20,000 to 30,000 along the course of the nerves of the limb affected, hypodermically and intramuscularly in most of the length. This I would repeat in the same manner every twelve hours, gradually reducing the dosage as judged best.

Weaker individuals and children I feel, should, according to age and weight receive smaller doses, but not in proportion to our method of drug usage, for small children have tolerated much larger doses than such rules would indicate, but injecting only intramuscularly and hypodermically.

The above statements are but impressions, and offered merely to state my scant experience, for the purpose of learning other methods and the results.

We must recognize that in tetanus, as with other diseases, there are virulent and benign infections; that perhaps over-treatment is indulged in many times. This I feel is the safe mistake to make, for conservatism here does not pay at all.

## Tetanus Summary January 10, 1930

## The Annie M. Warner Hospital

*J. T.* Admission 12–6–22. Male. Aged 16. School boy. Four days before admission scratched right hand on manure spreader. No treatment for two days, then iodine applied. Fourth day convulsions and admission. Tetanus first day,—10,000 units intraspinous, 5,000 brachial-phlexus, and 5,000 intravenous, arm. No serum second day,—in shock. Third day,—10,000 units given in several doses,—intramuscular. Fourth day completely relaxed and no further serum. In hospital 18 days. Total units given—30,000. Recovered.

*W. H.* Admission 6–14–23. Male. Farmer. Aged 35. Nail wound of foot 11 days previous. No treatment. No prophylaxis. On admission,—5,000 units given intraspinous. 10,000 intravenous; 10,000 to thigh and leg, intramuscular around nerve trunks. Severe reaction and continued convulsions. In hospital one day. Total units 25,000. Died.

*B. R.* Admission 8–29–23. Male. Aged 14. School boy. Nail wound of foot 10 days previous. Treated by doctor with phenol . . . no prophylaxis. Tetanus five days before admission; convulsions 24 hours before admission. 20,000 units given intraspinous,—severe reaction. Convulsions continued from 10 A. M. to 12 o'clock midnight second day. Total units given 20,000. Died in coma.

*N. C.* Admission 7–7–24. Male. Aged 14. In automobile wreck 10 days previous. Scalp wound. Treated by physician. No prophylaxis. Tetanus three days before admission. Units first 24 hours, intramuscular, in two doses,—20,000. Second day,—20,000. Third day,—10,000. Fourth day,—10,000. In hospital 23 days. Total units given 60,000. Recovered.

*G. C.* Admission 10–12–24. Male. Aged 6. School boy. Vaccinated for smallpox one month prior. Previous to admission smallpox area injured and immediately cleansed by doctor. Stiffness three days before admission. Convulsions 12 hours before admission. 10,000 units given on admission, and at intervals of 12 hours 30,000 more units given. Intervals of 24 hours 40,000 given; another 24 hours 10,000 and the following day 20,000 given. In hospital 32 days. Intramuscular injections only. Total units 110,000. Recovered.

*J. W.* Admission 2–4–25. Male. Aged 52. Laborer. Frozen feet five days before admission. No prophylaxis. Toes amputated and prophylaxis given on day of operation. 24 hours later tetanus,—20,000 intravenous, and 10,000 intramuscular. Total units given 30,000. Died in convulsion 18 hours later.

*J. C.* Admission 3–11–26. Male. Aged 48. Farmer. Incubation about seven days. Iodine treatment. No prophylaxis. Abrasive wound of left index finger. First day 20,000 units given intravenously and 30,000 intramuscularly eight hours apart. Second day 20,000 intravenous and 10,000 to brachial-phlexus. Third day, 10,000 intramuscular to abdomen. Fourth day, 10,000; fifth day, 5,000; sixth day, 2,500; seventh day, 2,500;—eighth and ninth days, 1,500. Total units, 113,500. In house 20 days. Last six days all doses intramuscular. Recovered.

*C. R.* Admission 7–18–27. Male. Aged 5. Nail wound of foot. Incubation several days, without treatment. Tetanus about eight hours before admission. First day intramuscularly 34,000 units given in two doses. Second day, 30,000 in two doses. Showing marked improvement he was given but 5,000 units on the third, fourth, fifth, sixth, seventh and eighth days, and nothing for two days, then 5,000. Total units, 99,000. In hospital 20 days. Recovered.

*T. W.* Admission 7–27–27. Male. Aged 5. Nail wound of foot. Incubation eight days. Had no treatment prior to admission. Symptoms 18 hours before admission. Typical convulsions. Given 30,000 units on admission. 5,000 to leg, 10,000 to thigh muscles and 15,000 to the right and left abdomen intramuscularly. On the second day, 30,000 intramuscularly. On the third day no convulsions, bright, but was given 10,000 more units. Total units, 70,000 with no results. Convulsions returned and patient died evening of the third day.

*L. K.* Admission 8–16–29. Male. Aged 4. Splinter wound of foot. No prophylaxis. Incubation period one week. Tetanus 12 hours before admission. First day, 50,000 units intramuscularly. Second day, 40,000. Third day, 20,000. Fourth day, 15,000. Fifth day, 15,000. Sixth day, 15,000. Seventh day, 15,000. Eighth day, 15,000. Ninth day, 15,000. Total units given, 200,000. Relaxation very slow. House total, twenty days. Recovered.

## DEPARTMENT NEWS

WHITE HOUSE CONFERENCE ON CHILD HEALTH—Some weeks ago at the call of President Hoover, the White House Conference on Child Health was held in Washington, thus for the first time since 1909 crystalizing the interest in child welfare on a national basis and dignifying this vital problem as a major governmental concern. From all reports, the results of this conference have been eminently satisfactory and will eventually lead to a more standardized and efficient method of control throughout the nation.

Said President Hoover at the opening of the conference: "We already have enough knowledge which, if brought together, compared and sorted, would give us some approach to the normal child. The crux of the problem is as quickly as possible to bring what knowledge we have into the open, broadcast it and make it familiar to the average busy but deeply concerned parent." Thus, continuing the conservation and reclamation principles which for many years have represented an outstanding achievement in the career of the chief executive, the President clearly stated the major problem involved.

Health officials, nationally known physicians interested in children's diseases and representatives of child welfare organizations attended the meetings. The Department was represented by the Secretary of Health, Dr. Theodore B. Appel, the deputy secretary, Dr. J. Bruce McCreary, and Dr. Mary Riggs Noble, chief of the pre-school section of the bureau of child health. These representatives were all named on important committees.

DO NOT BE MISLED—Dr. J. Bruce McCreary, deputy secretary of health, recently gave to the press some very excellent advice to parents, indicating that they are frequently misled into a false security regarding the probable length of life for their offspring on the basis of the much advertised increase in the span of life.

Said Doctor McCreary, "While the average length of human life has increased from an average age of 18 to 20 years in the sixteenth century to 48 years at the present time, there is nevertheless more hazard in adult life today than there was twenty years ago. This, not only in accidental deaths due to present-day living, but it also holds good regarding sudden deaths from disease.

"Twenty years ago the average age from sudden death was between 55 and 60 years; whereas, at the present time, it is between 45 and 50. It thus is apparent that the lengthening of the span of human life today is not due to the control of diseases of adult life, but because of the reduction in infant mortality.

"The deaths from adult diseases have woefully increased in Pennsylvania as well as in other sections of the United States, except in the cases of pneumonia and tuberculosis. For example, heart disease rates per 100,000 population in 1929 were 236.3 as against 134 in 1906; cancer 103.6 as against 58.9; nephritis, 104.9 as against 84 in 1906, and apoplexy 88.7 compared to 73 in 1906.

"The answer to this unfortunate situation lies in the fact that more children struggle through the early years of life and come to maturity with lesions of the heart and other organs, and thus readily fall victims to the killing diseases in earlier adult life than formerly was the case.

"It follows therefore that parents should see that all cases of contagious diseases from which their children suffer are checked up from time to time after the child becomes well in order that conditions arising from the childhood maladies may be corrected before permanent damage is done. The conscientious discharge of this obligation to children will undoubtedly very materially lessen the present distressing rates now existing in the adult causes of death."

Take notice, parents!

AFTER THEM—H. M. Haines, chief of the restaurant hygiene section, recently reported to the Secretary of Health, that an intensive investigation is being conducted by the personnel attached to his section for the purpose of checking up on the boards of health, both in cities and boroughs, to determine their activities with reference to the obligation imposed upon them by the law to maintain within their districts sanitary and safe conditions in restaurants and other public eating and drinking places.

"Unfortunately," commented Mr. Haines, "a number of boards of health, in spite of repeated officials assertions to the contrary, are under the false impression that the Department's restaurant hygiene section is the active agency to be relied upon for proper and sanitary conditions in public eating and drinking places. On the contrary, the section of restaurant hygiene is only charged with a supervising duty in this connection. Obviously it is impossible for the limited personnel connected with the central office to investigate the many thousands of eating and drinking places now in operation throughout the Commonwealth. And while the section has been willing and continues to stand ready to assist boards of health in the enforcement of the sanitary regulations, it must rely largely upon the efforts of the individual boards of health to provide and maintain required standards of restaurant hygiene in the respective communities. Efforts to this end are being intensively conducted at the present time."

It thus appears that the Department is anxious to raise the sanitary standards in the restaurants throughout the Commonwealth. Are you doing your share by avoiding the obviously carelessly operated ones?

MOBILE LABORATORIES CONTINUE TO OPERATE—Owing to the protracted dry weather, the Department's mobile laboratories have been on the go almost continuously since last spring. These laboratories have been testing individual sources of water supply in order that full protection against drinking contaminated water might be given to persons living in rural communities.

The results obtained have been very satisfactory. And while it is expected that the typhoid fever incidence would rise, as it did, the additional number of cases occurring were practically negligible in view of the extensive hazard which existed for so many months.

PARENTS COOPERATE!—Dr. Emlyn Jones, chief of the bureau of vital statistics, states that parents frequently complain of the disease dangers likely to exist in other people's children and at the same time disregard the possible infections which their own progeny may spread.

"Several months after school begins in the fall," said Doctor Jones, "there is a noticeably large increase in the reports reaching the bureau of vital statistics in the several childhood diseases. Case reports of chickenpox, diphtheria, scarlet fever, measles and the dread infantile paralysis begin to rise in the autumn and continue their ascent until the peak is reached in the following spring. Figures show that the greatest number of these cases occur among children from five to nine years of age. Not only do illnesses from these maladies cause physical discomfort to the young patient but he is further handicapped by the time lost in his mental development. The younger brothers and sisters at home also are exposed to the same risk.

The Summer Work of the Mobile Laboratories has not as Yet Ended—Thanks to the Drought

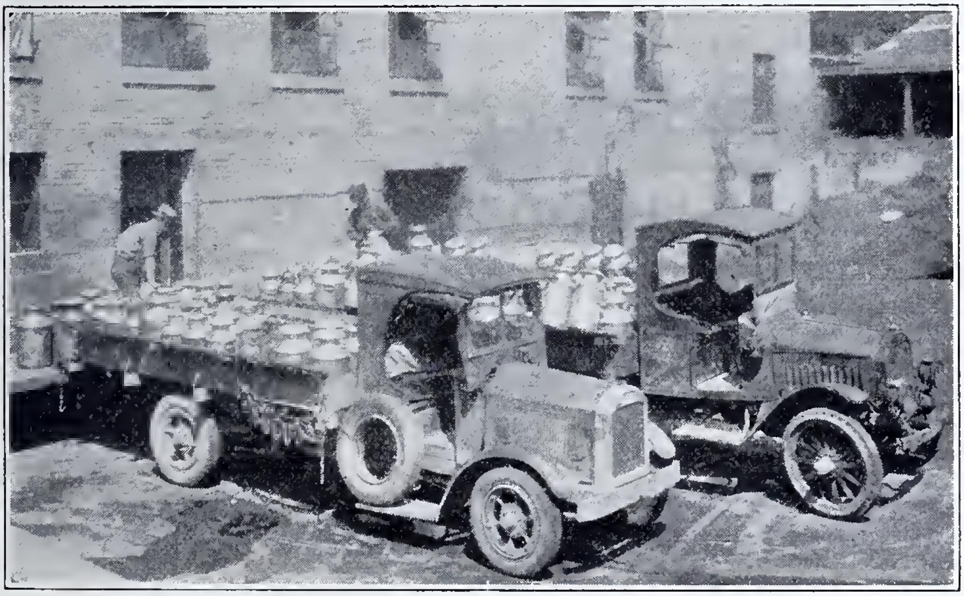
"It would therefore be well for parents to have their children thoroughly physically examined at this time if they have not already done so. No better example of the New Year spirit could be made than by the adoption of this very sensible precaution. Defects now located can be corrected and advice from the family physician as to daily habits can be obtained in order that physical resistance may be developed to its maximum and held there. It must be remembered that good scholarship depends greatly upon good health and that to the child of sound mind and body comes the responsibility of leadership in the future."

Parents naturally want to be kind to their children. No greater practical application of kindness could be made than to carry out the very wise advice given above. Keep disease and death out of the family by the employment of the proverbial stitch in time. And *please* observe the quarantine laws.

APPOINTED—Miss Mary DiRoberto, formerly a dental hygienist connected with the Department, has been appointed to the position of supervising dental hygienist for the state of Alabama. Miss DiRoberto will carry out in that state the dental hygiene program as developed in Pennsylvania by Dr. C. J. Hollister, chief of the Department's dental hygiene section.

MILK CONFERENCES—On the invitation of the Secretary of Health, more than 400 secretaries of boards of health and health officers in the Commonwealth interested in public milk supplies, attended the annual milk conference which was held in Harrisburg on the 20th, 21st and 22d of January in connection with the Annual Farm Show. From the reports the meetings were most interesting, and among other things, detailed explanation of the workings of the new milk law now in operation throughout Pennsylvania was given.

It seemed to be the consensus of opinion that this legislation, although in force less than a year and a half, has very noticeably raised the already high standard of milk in this jurisdiction. Milk being an ideal food and an eminently safe one, prompts the following admonition: Drink, or use in some form, more of it every day.



**Milk Legislation is Designed to Protect Supplies Like This**

YOUNG OFFENDERS—A report recently submitted to the Secretary of Health by Dr. Edgar S. Everhart, chief of the venereal disease section, indicates that there is an increasing number of disease spreaders among the young people of both the rural and urban districts of the Commonwealth. Doctor Everhart's comments are worthy of serious consideration by all parents of children between the ages of 14 and 21. Read what he has to say and then think it over.

"Undoubtedly lax parental control and the excessively free intermingling of irresponsible youth, coupled with the opportunities afforded by the automobile, roadhouses and the use of bootleg liquor have been directly responsible for the present serious condition," said Doctor Everhart. "The quarantine figures recently compiled indicate an entirely too large a number of young non-commercial offenders. The state, while rigidly applying enforced quarantine in the various stations set aside for that purpose, can obviously only deal with the individual patients which are brought to its attention. If the problem is to be solved, reliance must be placed upon education and a stricter supervision of youthful activities during the leisure hours.

"The Department through its staff lecturers reaches more than 300 schools outside the metropolitan districts annually, and by this method attempts to instruct the young in the consequences which inevitably follow in the train of lax moral conduct. In this work it is ably assisted by the cooperation of the parent-teacher associations throughout Pennsylvania. Until, however, parents are sufficiently impressed with the frightful results caused by misplaced confidence in their children's conduct, the present unfortunate and frequently distressing impairments to life and health will not be materially lessened."

It would seem from the above that the young folks of today have a rather hard battle to fight. The allurements are many. The older people's responsibility in this very complicated matter seems to be well established. Let's help the children to win!

SURVEY—The chief of the bureau of communicable diseases, Dr. J. Moore Campbell, a few days ago announced that the 265 health officers working under the direction of the Department are at present engaged in a careful survey to check up on the absentees from schools, for the purpose of locating households in which the quarantine law and placarding for contagious diseases are being disregarded. This activity is for the purpose of minimizing the very definite hazard which exists where carelessness on the part of the parents and health officers evidences itself in this important regulatory matter.

Unfortunate as the statement is, it is nevertheless true that many of the contagious disease epidemics among children which have occurred in recent years have got their start because the significance and value of quarantine have not been sufficiently impressed upon those involved. More cooperation is needed.

PROPER USE OF HIGHWAYS—John G. Ziegler, chief of the school section, bureau of child health, recently advised parents to instruct school children as to the proper use of highways in traveling to and from country schools. His advice is very timely, and if heeded will save many accidents directly attributable to the improper use of automobile roads.

"At least a half million school children each morning and afternoon are to be found on the public roads of rural Pennsylvania," said Mr. Ziegler. "This presents a serious problem of real importance. Invariably such children will be found traveling on the right hand side of the road so that they are not in position to see approaching cars, or if they are in groups of six and eight, they generally travel on both sides, which is still worse. Young children who of necessity must use the highways should be carefully instructed in safety conduct when on them."

Parents, tell your children about this. It may save a life.

BETTER BIRTH REPORTS DESIRED—"While it has been necessary within the last few weeks," recently stated James Duffy, chief of the Department's bureau of inspection, "to prosecute several physicians and to warn others because of laxity or absolute failure to report births, the general situation in this connection is better than it has ever been since the bureau of vital statistics has functioned.

"Apparently there is a desire on the part of a vast majority of Pennsylvania citizens to live up strictly to the birth registration requirements. The carelessness which in some former years was noticeable in a number of doctors with respect to this matter apparently no longer exists. However, it is the Department's desire to develop birth registration within the Commonwealth to as nearly 100 per cent efficiency as is humanly possible," concluded Mr. Duffy.

In order to further this desire, Mr. Duffy's bureau is now engaged in its semi-annual drive for better reports of births in Pennsylvania. Personnel connected with his office are at the present time in the field checking up on reported delinquents. The necessity and value of correct and efficient bookkeeping along this line should be evident to everyone. Both parents and physicians, therefore, should cooperate whole-heartedly with the Department's efforts. Get the babies registered!

A FINE REPORT—Dr. Mary Riggs Noble recently submitted to the Secretary of Health a final corrolation of figures connected with the annual summer activities of the mobile rural health units.* Dr. Noble's report indicates that out of a total of 8,189 children, ranging in age from birth to school age, examined by the doctors on the motor units in the five counties visited during the summer months, only 17 per cent of the children were found to have been vaccinated for smallpox. According to Doctor Noble there appears to be a very definite tendency on the part of parents to delay this important preventive measure until children have reached the school age. In view of the high susceptibility to this disease between the ages of one and five, as well as beyond, the Department at this time is strenuously advocating the vaccination of all children during the first year of life.

The report also shows that but 16 per cent of the children within the five-year range had been protected against diphtheria. While there has been a general application of the toxin-antitoxin measure with a consequent spectacular reduction in the diphtheria rate, the Department is energetically advocating this treatment for all babies as soon as they have attained the age of six months.

By this time it should be realized that health is the most important of all of the factors connected with the successful growth and life of a child. When Pennsylvania parents sufficiently realize this fundamental fact there will be a decided decrease in many of the crippling diseases of later life. But unfortunately this happy result will not come to pass without the older people charged with the supervision of the younger ones heartily cooperating in the child conservation movement.

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*See Article on Page 14

ESSAY CONTEST—There was recently concluded an essay contest sponsored by the Harrisburg Dental Society and the dental section of the Department. The subject of the essay was "Why, How and When to Care for the Teeth." It was limited to 500 words.

**The White House Conference will Develop a Real Chance for Children Like This One**

According to Doctor Hollister, chief of the section, the response to the invitation which was made over radio station WCOD was surprisingly large. More than 1,250 essays were submitted and the general standard of content was exceptionally high.

Undoubtedly the educational power behind a movement such as this one is incalculable. It is not saying too much to assert that a thorough knowledge of the proper care of the teeth among school children and an application of that knowledge will definitely limit focal infections which in later years would cause misery, shortened lives and premature death.

Are you emphasizing the proper care of the mouth for *your* children?

SKIDDING—Diphtheria continues its downward trend. The bureau of vital statistics announces a decided reduction in diphtheria prevalence in 1930. There were 4,926 cases of this disease reported during the first ten months of 1930, as compared with 5,878 during the corresponding interval of 1929. With the exception of January and February, each month in 1930 established a low morbidity record for that period. Judging from the reports as yet incomplete, the Commonwealth for 1930 will register the lowest diphtheria case and death rate in its history.

It is well known that such a record would have been impossible without the protection afforded the children of Pennsylvania by toxin-antitoxin. It is remarkable in view of these facts that even in an intelligent jurisdiction such as the Keystone State a goodly number of parents yet object to this highly preventive measure. Not to give the babies and older children the benefit of toxin-antitoxin is either an indication of carelessness or inexcusable stubbornness. More than that, if the child contracts diphtheria and dies in consequence, it is a crime.

SMALLPOX—Dr. J. Moore Campbell, chief of the bureau of communicable diseases, reports that 1930 represents the lowest smallpox rate ever achieved in Pennsylvania. 1930's aggregate amounted to but 37 *cases*, with no deaths.

Commenting on this report, Doctor Campbell said, "The very satisfactory low incidence is undoubtedly caused by the compulsory school vaccination law which has succeeded in immunizing the greater majority of the population of Pennsylvania under the age of 50, and establishes immunization among all school children beginning at six years.

"The significant fact in the situation is that during the past five years with the possible exception of a very few cases among patients who had never been vaccinated, practically all of the smallpox was directly traceable to importations. The present year's history in this disease gives this Commonwealth a clean slate, the cases having arisen in Ohio, New York and one case in Indiana."

THE COMMITTEE ON THE COSTS OF MEDICAL CARE—The Committee on the Costs of Medical Care organized to study the economic aspects of prevention and care of sickness has sent from its main office in Washington, D. C., a number of interesting studies connected with this important subject. The value of this investigation will undoubtedly have far reaching consequences for the nation at large, touching as it does the care of the family as a unit and medical supervision by industry in general. It is entirely likely that the results of the committee's work will eventually develop a program, already adopted in many jurisdictions, which will definitely conserve the health and life of thousands of families.

CHANGE OF ADDRESS—It was recently announced that district office H, of the bureau of engineering, has been moved from its recent location to the 13th floor of the Market Street National Bank Building, Juniper and Market Streets, Philadelphia. This office will be the new headquarters for the supervision of the engineering work of the Department in Philadelphia, Delaware, Montgomery, Chester and Bucks Counties.

The engineering personnel of the Philadelphia office comprises H. M. Freeburn, district engineer; B. C. Gorman, Jr., assistant engineer; H. K. Kinsel, engineering assistant, and S. E. Kappe, sanitary officer.

The duties of the bureau of engineering in this office, as well as in the other district offices, include the review of plans of water works and sewerage and recommendations relative thereto to the Secretary of Health and the Sanitary Water Board; supervision of operation of water supplies, water purification plants and sewage treatment works; investigation of typhoid fever, major nuisances, bottled water supplies, highway water supplies, pollutions of streams; and in general, advising and assisting the public in all matters pertaining to sanitation.

BOTTLED WATER PERMITS—Permits for the distribution of bottled water have been mailed to the various distributors throughout the Commonwealth according to sanitary engineer, Henry P. Drake.

"While this law was passed by the legislature in 1929, it did not become effective until March of 1930," said Mr. Drake. "While many dealers in bottled water have complied with the law in all its particulars, there are numerous instances where carelessness in this respect has been noted. To further the full force and effect of this legislation the bureau of engineering will in the near future send inspectors into the field for the purpose of checking up on the delinquents. Distributors thus being found not to be abiding by the law will be prosecuted. It is the Department's full intention that the guarantee of purity and safety of bottled water shall be not only displayed on the label but be an actuality. Consumers must be protected."

Bottled water distributors, get your permits in early.

DEATH—Mrs. Agnes Adams, who has been secretary of the Montoursville Board of Health for the past eight years, died recently following a surgical operation. The Board of Health at its last meeting adopted resolutions which indicated the high esteem which it held for her personally and for her professional activities.

After all, the real value of a life is determined not on the basis of how much money one has gathered, but what that life has meant to others in helpfulness and kindness. Apparently Mrs. Adams' activity in working for others very eloquently exemplified this fact.

MILK CONTROL BUREAU APPOINTMENTS—The milk control bureau reports the appointment of nine district milk control officers in as many districts of the Commonwealth to represent the Department in inspecting dairy farms from which raw milk is sold to the consumer, as well as all receiving stations and plants handling pasteurized milk. These men will inspect at least 10 per cent of the farms selling milk for pasteurization. The officers are: District No. 1, A. J. Houser, 283 Walnut St., Meadville; district No. 2, C. G. Gifford, 203 Standard Life Building, Pittsburgh; district No. 3, W. S. Anderson, Ebensburg; district No. 4, W. C. Sterrett, 35 Eldred St., Williamsport; district No. 5, L. E. Bechtel, Lewisburg; district No. 6, H. E. Shrote, Harrisburg; district No. 7, D. A. McCarthy, 80 Shoemaker St., Forty-Fort; district No. 8, G. P. Miller, Y. M. C. A., Norristown; district No. 9, C. E. Lewis, Smicksburg.

CHILD HEALTH COUNCIL OF PITTSBURGH—The Child Health Council of Pittsburgh and Allegheny county has been exceedingly active during 1930, according to a printed report of its activities which has just reached the Department.

Its major work during the year involved May Day activities, health certificates, weighing and measuring campaigns, summer round-up and the duties of the county school nurses.

This association is one of the best organized of its kind in Pennsylvania and is doing much toward health conservation and disease prevention in Allegheny county. Working in close connection with the Department of Health, it is a real power for physical welfare throughout the population it serves. Many jurisdictions could well emulate the fine example set by Allegheny county in this respect by organizing along similar lines.

Among those of the Department personally interested in this organization are Dr. John R. Conover, Allegheny county medical director, who is the secretary and treasurer; and Mr. C. B. Auel, member of the Advisory Board, who has been most active in the development of the certificate of health which is awarded to school children from the first to the twelfth grades for a satisfactory score in health requirements.

APPOINTMENT—Dr. W. F. Davidson, Kingston, Pa., was recently appointed by Governor Fisher as medical director of sanitary district No. 26, Luzerne county. This county is now a first-class health district with full time officials.

## OBITUARY

It is with extreme regret that the Department is forced to record the recent death of Doctor Joseph Calvin Reifsnyder, formerly medical director for Lackawanna county. Doctor Reifsnyder was one of the most prominent practicing physicians in his section of the Commonwealth and had been in practice in Scranton for 27 years.

While Doctor Reifsnyder had been in ill health for almost a year the news of his death came as a great shock to his innumerable friends, not only in northeastern Pennsylvania, but throughout Pennsylvania.

Doctor Reifsnyder was an ex-president of the Lackawanna County Medical Society, ex-president of the Pennsylvania Health Association, and for the past twenty years served as referee and examiner for the Mutual Life Insurance Company of New York.

During the World War he served as a member of the Scranton Draft Board and saw active service in the U. S. Army during the Spanish-American War and during the uprising in the Philippines.

Doctor Reifsnyder most ably represented the Department in the capacity of county medical director for Lackawanna county from January 10, 1908, to October 1, 1930. His pleasant personality, coupled with his professional capabilities which were always available to the Department upon call, endeared him to his many co-workers in the Department. And they mourn his passing.

# VITAL STATISTICS COMMENT

## WHY ARE STATISTICS VITAL?

**Florence Hardy**
*Assistant Statistician*

IN practically every state in the Union there is a staff of workers whose duty it is to collect and tabulate the vital records of that civil division. Recently, the larger cities of the country have created bureaus of their own for the purpose of obtaining numerical data to be used in the development of the municipality. With the increasing use of business-like methods in the performance of government activities the value of statistics becomes daily more apparent. The explanation of many business failures can be traced to inadequate and careless bookkeeping methods.

The compilation of vital statistics, that is, births, deaths, marriages, divorces and morbidity reports, is a distinct part of health programs. However, this material is not limited to health work. It extends throughout practically every channel of community life. A birth certificate means nothing at all to a young child. But fifteen or twenty years later that notification of birth may completely alter the course of his life. His privileges of citizenship, of inheritance, of employment, are all established upon presentation of his natal record. Not only is the individual concerned with his certificate but society also takes an active interest in it. School authorities carefully study the birth figures of a given year in order to approximate the number of children entering school five or six years hence. Chambers of Commerce can estimate the population of a city far into the future by obtaining, together with other factors, the natural increase in population. Thus, housing conditions can be regulated over a certain period.

One of the most important uses of birth totals is made by the health official in computing infant mortality rates which are considered as indexes of a community's health. From a detailed classification of births and infant deaths the welfare worker can ascertain the extent of racial mortality among infants, the relative advantages of hospital or home deliveries, the proportionate death rates among children of native and foreign parentage.

The registering of death certificates is of infinite importance to the vital statistician. In the war against tuberculosis the statistical history of the disease has illuminated many of its characteristics and has furnished concrete facts which prove the success of the endeavor. A further use of mortality reports is in cases of accidents where the causes of death as stated on the certificate are accepted as evidence for compensation.

The sociologist informs himself on the marital conditions of his cases. Are child marriages legal in the state? Is the divorce rate above the average for the country? He investigates the statistics to learn the average age at marriage and at divorce of both parties and if the ages are increasing, and the reasons for this. In states where marriage laws are in need of revision he presents the data to legislators as proof of the necessary changes. To merchants selling household articles the number of marriages registered in his city in a year is an item of much interest.

The morbidity statistics are employed primarily by the health worker. The sanitary engineer watches the trend of typhoid fever in his territory. The epidemiologist charts the history of communicable diseases and from these tables obtains information relative to their past incidence and probable recurrence. The scientist in his laboratory prepares the antitoxins and serums to combat the spread of disease. In his survey the economist computes the loss in time and money to society from illness.

And so, despite the average person's conception of figures he should feel indebted to a system which records the vital events of his life and indirectly stands guard over his well-being.

# PENNSYLVANIA DEPARTMENT OF HEALTH

## *Executive Office*

Secretary of Health—THEODORE B. APPEL, M. D.

Sanatoria and State Clinics:
1. Mont Alto Sanatorium—Medical Director, R. H. McCutcheon, M. D.
2. Cresson Sanatorium—Medical Director, T. H. A. Stites, M D.
3. Hamburg Sanatorium—Medical Director, H. A. Gorman, M. D.
4. State Hospital for Crippled Children—Francis S. Chambers, M. D.

Deputy Secretary of Health—J. BRUCE McCREARY, M. D.

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2. School Sanitation—John G. Ziegler
3. Pre-School—Mary Riggs Noble, M. D.
4. Dental Hygiene—C. J. Hollister, D. D. S.

## *Bureaus*

Communicable Diseases .......................J. Moore Campbell, M. D.
1. Epidemiologists—Harold B. Wood, M. D.
   Samuel J. Dickey, M. D.
2. Genito-Urinary Diseases—Edgar S. Everhart, M. D.
3. Restaurant Hygiene—Howard M. Haines
4. Tuberculosis—John B. Critchfield, M. D.

Sanitary Engineering ..................................W. L. Stevenson
1. Water Works and Sewerage—H. E. Moses
2. Roadside Water Supplies—Henry P. Drake
3. Industrial Wastes—F. E. Daniels
4. Housing—H. F. Bronson
5. Nuisances—D. V. Ness

Milk Control ..............................................Ralph E. Irwin
Nursing ................................................Alice M. O'Halloran
Public Health Education ...............................J. Clarence Funk
Laboratories ......................................John L. Laird, M. D.
Drug Control ........................................James N. Lightner
Bureau of Inspection ..................................James Duffy
Vital Statistics ...............................Emlyn Jones, M. D.
Finance ................................................C. T. Williams
1. Accounts—E. J. MacNamara
2. Supplies—Roy G. Miller

## *Advisory Health Board*

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S. R. Haythorn, M. D., Pittsburgh
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Charles F. Mebus, C. E., Glenside

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Chief Engineer and Secretary—W. L. Stevenson, Harrisburg

# PENNSYLVANIA'S HEALTH

MARCH—APRIL, 1931

*Special Articles by* Ellice McDonald, J. C. Funk, J. R. Conover, Evelyn M. Carpenter, A. J. Bohl

# Pennsylvania's Health

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The Sun and Science at Work at the Crippled Children's Hospital

# Editorial

## THE HIGH COST OF ILLNESS

WHATEVER else has flopped during the present economic depression the cost of illness still maintains its high and unenviable position on the market. Indeed, except for the very poor, who perforce become objects of charity, it decidedly is no financial joke to be ill in this year of our Lord 1931. Hospitalization, in view of the heavy overhead and necessarily expensive equipment, is no small item. And physicians, too, have a right to expect payment for their services somewhat compensating them for the valuable and frequently extraordinary services they render.

And while there is no desire even to infer that the present quotations for medical service conscientiously rendered are beyond the figures that they should be, the point still remains that prolonged illness and operations are luxuries that few can afford without a definite pinch upon their pocketbooks.

This being so, it would appear reasonable for all to make a real and sustained effort, in so far as is possible, to avoid conditions that inevitably involve the expenditure of funds for the purpose of curing disease. Unfortunately, however, this phase of economy is frequently overlooked and in many more instances is shamelessly ignored. As a consequence, literally millions of dollars are spent by the American public for physicians' services and hospital treatment that would not have had to be spent if the interest of the individual had been centered even to a moderate degree upon the business of keeping well in the first instance.

It seems strange that pleasure (real or imaginary) and money-making should preclude and often crowd out the considerations of health and well-being. But the fact remains that the average person will devote time, energy and interest to such matters and turn his back upon any suggestion that is connected fundamentally with his own health.

True, he will give ready ear to the high-powered and high-salaried radio orators whose eloquence is directed to the sale on the health urge of anything from cigarettes to automobiles; and he will also be peculiarly sensitive to the multi-colored and fascinating advertising spreads which tell a similar story. But so far as seriously and daily following nature's mandates which, if conscientiously obeyed, give some assurance for a long and healthy life—somehow he just cannot be bothered. It is too bad, but nevertheless it is true.

Eliminating the definite advantages of abounding vigor and vitality and all the joy and happiness attached to them, it will pay in cold dollars for everyone to live according to nature's dictates rather than to follow the devitalizing customs and habits which now make slaves and unnecessary invalids of so many.

Therefore, cut the high cost of illness with the low cost of obeying nature's laws. Thus save the capital which thousands through their own direct carelessness are now spending to make themselves well—or to pay for premature funerals.

## THE CANCER PROBLEM

**Ellice McDonald, M. D.**
*Director, Cancer Research, Graduate School of Medicine*
*University of Pennsylvania*

CANCER is the most important human problem of our time. It is a greater problem than war, pestilence, famine or unemployment. It kills more than tuberculosis and five times as many people as do automobiles. There are, at any one time, more than three-quarters of a million cancer patients in the United States. Familiarity with the disease has bred contempt and there are great outcries from time to time as to other diseases or other causes of mortality, but cancer has increased in its death rate.

Cancer Research Laboratory at the Philadelphia General Hospital

According to Doctors Appel, Arner and Wood, its rate per 100,000 has increased in Pennsylvania from 58.9 in 1906 to 103.6 in 1929. Within twenty-five years in Philadelphia there has been an increase of 38.5 per cent. In Great Britain in 1928, 56,253 deaths occurred from cancer. This was 12.2 per cent of all deaths and equivalent to a rate of 1,425 deaths per million people living. Australia has had an increase of 58 per cent of cancer deaths in twenty years. In the registration area of the United States, the increase has been from 62 per 100,000 in 1900 to 71.6 per 100,000 in 1906, 111.5 per 100,000 in 1925 and 117 per 100,000 in 1928. In a study by F. L. Hoffman, of fifty American cities, from 1906 to 1929, the death rate increased from 71.6 to 117.8 per cent. These cities represent forty million people and the number of deaths from cancer amounted in 1929 to more than forty thousand people, or more than one thousand deaths from cancer for every million people in these cities.

The menace of cancer is so increasingly great that the various countries have established governmental agencies to combat the disease. Great Britain has an official and semi-official effort in the National Medical Research under the Ministry of Health, the National Radium Trust and the British Empire Cancer Campaign. Great Britain has bought twenty grams of radium, half of which was paid for by the government. The British Empire Cancer Campaign collects approximately $400,000 yearly which is distributed to various cancer centres and research organizations. Belgium has four university anti-cancer centres which the government aids with a million gold marks yearly. In Australia, through government and semi-official channels, there have been raised 134,000 pounds besides many private gifts. The Government of Australia made an official investigation of the treatment of cancer by radium and radiation as an aid to surgery and, as a result, purchased ten grams of radium. In Sweden, there is an active governmental effort, more particularly centered at the Radium-Hemmet in Stockholm, where radium and radiation treatment have been used since 1910. Two years ago, on the occasion of the seventieth birthday of King Gustav, a present of $370,000 was raised for him and he presented this for the purchase of radium. It may be interesting to note that, since 1914, cancer of the uterus has been entirely treated at the Radium-Hemmet by means of radium and radiation and not by surgery.

## Results in Sweden

The results in the Stockholm Clinic, where treatment is almost entirely by radium and X-rays, may be interesting:

| | |
|---|---|
| 207 cases of cancer of the skin of the face | 5 yr. cures 68% |
| 66 cases of lip cancer | 5 yr. cures 68% |
| 113 cases of cancer of the mouth | 5 yr. cures 62% |
| 500 cases of cancer of the cervix | 5 yr. cures 22.4% |
| 145 cases of operable cancer of the cervix | 5 yr. cures 46.2% |
| 234 cases of inoperable cancer of the cervix | 5 yr. cures 16.7% |
| 46 cases of cancer of the uterine body | 5 yr. cures 43% |
| 543 cases of sarcoma | 5 yr. cures 24% |

Taking all cancer cases as they come to the Radium-Hemmet in Stockholm, there are five-year cures in 36.5 per cent of all cases; and this, almost entirely by the use of radiation.

In Switzerland, there is an active effort; in Russia, there is a government enterprise; and in France, there is a semi-official aid for cancer treatment. In Canada, the various provinces have been given government aid for cancer treatment. The Province of Ontario is giving $1,000,000, a large portion of which will go to the purchase of radium. The Province of Saskatchewan has established a Government Cancer Control Centre with wide aims for treatment of cancer by a nucleus of a full-time, well-trained personnel of medical men.

In the United States, New York and Massachusetts have begun an organized effort against cancer. In New York, there is the State Institute for Malignant Disease at Buffalo, where a hospital and research for cancer is maintained. The hospital is being doubled in size and the State of

New York has recently bought an additional five and one-half grams of radium. The large private charities in New York City maintain special hospitals for cancer, like the Memorial Hospital, which is, in this country, one of the foremost cancer clinics.

In Massachusetts, the Public Health Department has undertaken a comprehensive effort against cancer. Legislation has been passed directing the department to: (1) provide and maintain a state hospital for cancer patients; (2) organize cancer clinics at various points; (3) conduct an extensive program of public education; and (4) to make a careful study of the cancer situation in the state. A hospital for cancer patients with 115 beds is provided at Pondville near Boston. A gram of radium and complete therapeutic X-ray and surgical equipment is provided. Local clinics are organized at strategic points; the public is educated by means of committees. Of 5,000 people examined in the state clinics, about 1,000 were found to have cancer. Altogether the government program in Massachusetts is the most advanced in this country.

**Cancer Research Laboratory at the Oncologic Hospital—Biochemistry Room**

In Pennsylvania, there are cancer hospitals in Philadelphia, particularly the Jeanes Hospital which is at Fox Chase in the environs of the city, and the Oncologic Hospital and Cancer Control Centre which has been a hospital entirely devoted to cancer since its organization, twenty-five years ago. The Oncologic Hospital is centrally situated at 33rd Street and Powelton Avenue, near the West Philadelphia station.

The concensus of modern thought in Europe and in this country, is that cancer as a disease requires such special knowledge and care that it is best treated in cancer centres or in special hospitals for the purpose, where groups of medical men may cooperate for the single purpose. In such hospitals as the Philadelphia General Hospital, where the city maintains a cancer clinic with two grams of radium and full equipment, with eighty cancer beds, the clinic is set up as a group under the name of the Radiologic Clinic and serves the purpose of a special cancer centre.

## Activities in Philadelphia

In Philadelphia, associated with these activities, is the Cancer Research of the University of Pennsylvania Graduate School of Medicine. This has been in existence for three years, but only has come to its present development within the last year. It is under the control of a committee consisting of Dr. Ellice McDonald, director; Dr. George H. Meeker, dean of the Graduate School of Medicine; Dr. Hamilton Bradshaw, of the Experimental Station, Wilmington; and Dr. W. F. G. Swann, director of the Bartol Research Foundation—the physics research activity of the Franklin Institute. In addition, there is a consulting committee for chemistry, immunology, biology and patient activities respectively, composed of Dr. E. O. Kraemer, Professor John A. Kolmer, Professor C. E. McClung and Dr. George M. Dorrance.

There are three laboratories: (1) the Central Laboratories, consisting of twenty-one laboratory rooms, the whole top floor of an office building at 133 South 36th Street; (2) the Cancer Research Laboratory at the Oncologic Hospital, 33rd Street and Powelton Avenue, with six laboratory rooms; and (3) the Cancer Research Laboratory at the Philadelphia General Hospital, with one large room. There are, thus, three laboratories maintained by the Cancer Research; the central and largest laboratories doing research in chemistry, physics, tissue culture, cell study, etc.; and the two Cancer Research Laboratories maintained in hospitals doing research associated with the disease in patients, such as the biochemistry, cell morphology and immunology of cancer.

The Cancer Research is divided into departments of chemistry, physics, cell study, animal cancer and patient activities. These are, in part, overlapping and each is correlated and coordinated with the other, so that there may be the mutual advantage of sharing knowledge.

The department of chemistry has activities in all three laboratories. In the Central Laboratories, Doctors R. J. Fosbinder and George Bancroft, chemists, with two assistants, are occupied in research into the metabolism of the cancer cell. In the Cancer Research Laboratory at the Philadelphia General Hospital two chemists are working upon biochemical studies upon patients and cooperating in this study with the group of clinicians of the Radiologic Clinic. In this laboratory, there has been considerable study as to the degree of alkalinity of the blood in untreated cancer patients and it has been confirmed that untreated cancer patients have generally more alkalinity of the blood than normal. The third chemical activity is in the Cancer Research Laboratory at the Oncologic Hospital where there are two chemists working upon biochemical problems, having to do mostly with the reducing substances of the blood and their relation to cancer. In both of these hospital laboratories, there is considerable study as to the effect of radiation treatment upon the biochemistry of the blood of cancer patients.

The department of physics is under Dr. Alexander J. Allen, physicist, with his assistant, and under the supervision of Dr. W. F. G. Swann, director of the physics research of the Franklin Institute. There are three rooms for physics at the Central Laboratories where there is a complete equipment of research X-ray apparatus, spectrograph, monochromotor, ionization chambers and all the elaborate and exact apparatus required. Here research is done with the hope of improving the mechanism of radiation so as to extend its value. Radiation cures some; if its effects can be extended or improved, it may cure more. There are, in addition, two rooms for physics at the Oncologic Hospital where a radium emanation plant, a new method of measuring radon seeds, and other interesting things for the improvement of the radiation treatment of cancer are used.

**Central Laboratory—Dr. Shigemitsu Itami's Room**

The department of cell study comprises a tissue culture group using eight rooms, where cancer cells and mammalian cells are grown in incubators, like bacteria. This is a miniature biological test plant and has the advantage of making it possible to study the reactions of cells under various experimental conditions. Tissue culture requires elaborate and complete apparatus and carefully trained workers and is not without its difficulties, but gives the reward of being a useful tool wherewith to study cancer. The tissue culture group of six workers correlate with the chemistry and physics departments so that all the work is group research.

The department of cell study is under the supervision of Dr. William C. Hueper, chief pathologist, and he is in charge of the Cancer Research Laboratories at the Oncologic Hospital, where there are five research workers, two of them being chemists. Dr. Hueper has an extensive research program in cell studies and, at the same time, is pathologist to the Oncologic Hospital.

The department of animal cancer is directed by Dr. Shigemitsu Itami, who has had twenty years' experience in this work in New York and London, Copenhagen and Dublin. The work here is entirely upon spontaneous breast cancer in mice and not in transplanted or induced cancer. We have two strains of mice; of one strain, sixty per cent of the females have breast cancer, and of the other strain, twenty per cent of the females have breast cancer before two years of age. The work is mostly in the latter strain. These naturally occurring cancers have a much more constant course than transplanted or induced cancers, as there are no recoveries or recessions, which sometimes occur in transplanted cancer. We do not, therefore, ever give animals cancer, but we work in a breed of mice in which cancer occurs and try to cure these. The research into the treatment of these spontaneous tumors in mice correlates with the chemistry and physics departments and involves an extensive research program.

The department of patient activities is in the two hospital laboratories where there is an extensive research program, mostly along the lines of biochemistry in its relation to the treatment of cancer before and after radiation by X-rays and radium with the hope of being able to improve the conditions of treatment. In addition, there are research studies before and after certain other phases of treatment, as well as into the diagnosis of cancer. Altogether in the two hospitals, there are 130 beds available for cancer patients; the research study into the conditions of the blood and body fluids in cancer aids the treatment of these patients. There are two active out-door clinics at the Oncologic Hospital and the Philadelphia General Hospital Radiologic Clinic. Dr. George M. Dorrance, chief of the clinic at the Oncologic Hospital, cooperates with us there, and Dr. B. P. Widmann, chief radiologist of the Philadelphia General Hospital, cooperates with us at that institution.

In addition, there are in the Cancer Research, three rooms for executive and administrative purposes, and a library which has a large number of books on cancer, chemistry, physics, cell study and other subjects pertinent to the research. All the current cancer journals are kept on file and most are in complete sets. Biochemical, physical and other journals are available under the direction of a librarian whose duty it is to see that each research worker gets the current discoveries and all information necessary for the research in the most available form and with the least trouble. Several thousand reprints are filed, indexed and classified so that all the past and present knowledge may be immediately available.

The Cancer Research thus occupies thirty-three rooms with about seven thousand square feet of space, under five departments, with laboratories situated in two hospitals and the top floor of an office building. It is fully equipped with the necessary apparatus and has the personnel of research scientists with a good advisory board. It is planned to bring the combined resources of chemistry, physics, tissue culture, biochemistry, cell morphology, radiation, surgery and medicine to focus all possible scientific knowledge on the single problem of cancer.

We have brought together scientists from various parts of the world in a single organization, so that their knowledge could be inter-changed and their experience widened by association with those in other spheres of knowledge, to the advantage of further research in cancer.

# The Health Gnome Says—

We spend our money freely,
For all sorts and kinds of things;
And get a big kick doing it,
By giving dollars wings.

But there should be limitations
To this great spending game,
As the many costs for illness
Make pocketbooks quite lame.

Yet many folks around us
Do not limit anything;
They spend precious vim and vigor,
Just to have a little fling.

And then come bills from doctors—
From hospitals and nurses, too;
And undertakers get paid ahead by those
Whom faulty habits slew.

So, use your head when spending,
And spend something on your health,
By living up to nature's rules;
And thus conserve your wealth.

*J. C. F.*

# MANNERS IN HEALTH

**J. Clarence Funk, Sc. D.**
*Director, Bureau Public Health Education*

IN all departments of life there are morals and manners. The proper observance of the rules stamp the individual as one who "belongs," and to a degree sets him apart from those whose carelessness in the niceties and refinements of modern existence are noticeable. Thus, while this country prides itself in its real democracy with all that this term signifies, there nevertheless is a conduct standard toward which everyone should aspire. Its acquisition opens doors and develops social and business contacts that otherwise are likely to remain closed.

More recently there has developed in this nation an aristocracy of health. That this should have occurred was inevitable. The fact that one may perchance possess social standing and wealth in itself is no longer sufficient. The proper discharge of one's daily duties in accordance with the accepted customs has also now connected with it the prime requisite of physical fitness. Indeed, lacking this element, the qualities of leadership cannot be properly developed, and in a most literal sense cannot be sustained.

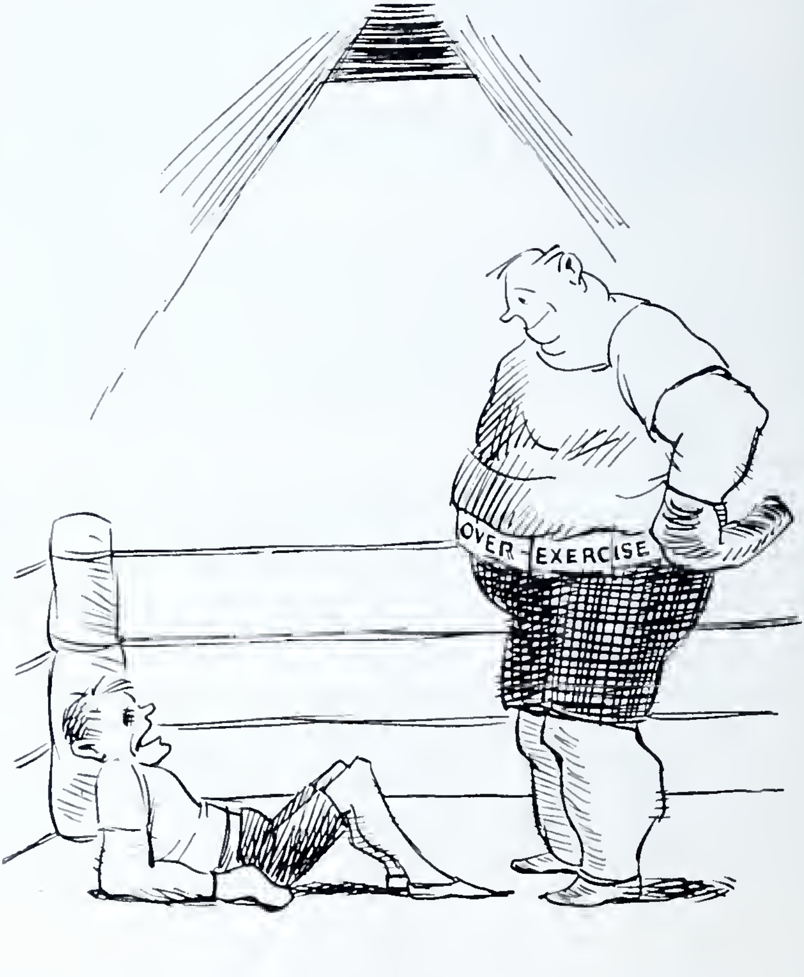
So it has come to pass that men and women of distinction are more and more realizing the important part that vigor and vitality play in their success. Diet, exercise, rest, fresh air and recreation consequently occupy a much larger part in the program of leaders than formerly was the case. The fundamental living rules, as a matter of fact, are as rigid and exacting as are those of the formal dinner, ball room and the office. This situation is now well appreciated.

Years ago, the necessity for especial attention to these matters, while always important, was not so particularly essential as they are today. Life moved at less speed, enervating duties and pleasures were not so abounding as they are at the present time, and the highly specialized aids to comfort did not exist. Indeed, in the days of our forefathers, much that is now done by the machine was accomplished by the individual. Exercise and open air activities followed as a matter of necessity and fact.

Pleasure also was on a lower speed level. It was for the most part self-made. Riding, walking and out-door life in general, occupied the attention of everyone either by compulsion or by choice. That the disease rate was much higher in those "more natural" days was not so much based upon a non-conformance to the laws of nature as upon the inability of science properly to cope with contagious diseases, conditions of the infant and the lack of appreciation as to the causes involved.

Today, the situation is quite reversed. Amazing progress has been made in the past thirty or forty years against the ills to which humanity is heir. Smallpox, by reason of vaccine; typhoid fever, through the proper control of milk and water supplies; tuberculosis, on account of modern hospitalization, removal of contacts and increased standards of living; diphtheria, thanks to antitoxin and toxin-antitoxin; the maladies of childhood, due to prenatal and well baby care—all these have succumbed to the onslaughts of science and are therefore preeminently under control. Surgery, also, with a theatrical success has saved and continues to save countless lives.

It is therefore perhaps not too much to say that had these scientific and medical achievements been attained a hundred years ago, the people of that day, with their open air life and more natural way of living, would have shown a remarkably low death and sickness rate. As it was, the hard rule of the survival of the fittest applied—and much needless suffering and many premature funerals resulted in consequence.



**One of the Bad Health Manners**

But, as has been stated, remarkable strides have been made not alone along medical lines, but in the general art of living also. So it is that machines have taken the muscle out of life, not only in the home but in the shops also; and machines in the form of movies and the automobile with all its by-products, have supplanted other modes of recreation. Moreover, business in general has been so stepped up that a sixty-mile-an-hour gait during the day results which, coupled with an equally and frequently greater rate at night, makes speed king.

The actual physical demands upon the body, which, by the way, has not had its model changed since the Garden of Eden days, are in these times actually tremendous. That countless people are unable successfully to cope with this terrific strain is eloquently proved by the ever-increasing death rates of the so-called diseases of middle life. Heart conditions, which in the "good old days" were comparatively inconspicuous now top the list and frankly are causing much concern to physicians and official medicine generally. Nervous disorders also occupy a too prominent position on the chart, as do Bright's disease, cancer and the so-styled degenerative diseases.

Unfortunately, scientific mass prevention cannot be applied to them as was so magnificently done in the case of typhoid fever, for example. In the latter instance, once it was determined that the typhoid bacillus was the criminal involved, the problem was reduced to the necessity of serving safe water and milk to the citizens. These things the average individual in Pennsylvania and the other states now obtain as a matter of course. He drinks good water and safe milk because the health authorities protect them at the source.

Quite on the contrary, the doctor and the health departments are exceedingly helpless in these other direct results of high-gear life. True, medical science can do and has done much, but its powers are limited to the conscientious and personal effort of every individual. Much as physicians might desire people properly to regulate their daily lives so as to minimize the dangers of the present day's physiological enemies, little can be accomplished if the individual himself turns a deaf ear to the common sense regulations which have been set down not by the medical profession but by old nature itself.

Manners in health have therefore been adopted. They have been offered to the public on the bases of science, wisdom and complete realization of nature's limitations. It is a code, which as intimated, while strict, is not a harsh one. But it means playing the game. No wonder then that the nation's leaders and thousands of others are alive to it seriously and abide by its rules. These people comprise that enviable though yet too restricted list known as Who's Who in Health.

One has but to discuss this matter with the men who are "in" to discover a major secret of their success. They will tell you that first the body must have its necessary amount of rest. Individuals of course differ in their personal requirements. However, speaking generally, the average grown-up needs eight hours' sleep each night. A protracted disregard of this rule means that the candle has been burned at both ends, with its consequent consumption long before its intended time.

They will also indicate that exercise cannot be safely disregarded either. Nor in this connection is an occasional golf or tennis game sufficient to meet nature's exacting demands. It is certainly a temptation to which many give way, to permit gasoline to do leg duty for one. Rolling along in a high-powered car is delightful. There is no gainsaying that. But to permit one's enthusiasm for speed to overcome the daily necessity of a two- or three-mile walk is quite unfortunate to say the least. It may even result disastrously.

Again, you will be told that food demands real attention. In general, it is not so much what you eat as it is the quantity consumed. Those who consider it in the light of a sport are very definitely handicapped. Food essentially is for the purpose of sustaining life. Excess provender, and equally, an habitual lack of sufficient food, are dangerous principles to follow. Enough, but not too much, should be the rule.

And finally, the periodic physical examination is of the utmost importance. It is positively pathetic how many lives are being annually sacrificed by an indifference to this cardinal factor. It must be appreciated that the main killers of middle life such as Bright's disease, cancer, heart trouble and tuberculosis are master criminals in their manner of approach. They stab in the back. They oft' times and most usually approach painlessly. Not until they have a death grasp does the unfortunate victim become aware of their presence—then it is too late.

The simple expedient of an annual visit to your physician for a thorough examination removes much of the possibility from this score. The practiced and scientific eye of the professional man can detect the presence of these conditions long before they are even suspected by the subject. And that is the effective time upon which to lay scientific hold upon them. Many thousands in the United States today are suffering and dying because carelessness in this vital matter has existed. Why should not one extend the same courtesy to his body that he does to his automobile? The Code of Manners in Health absolutely demands it.

**Good Health Manners and Dame Fashion are Sometimes Poor Companions**

It is thus seen that the Code of Manners in Health, while not a big or difficult one, is an exacting one. The really smart person will scrupulously live up to its dictates. Life being the beautiful and wonderful experience that it is, to do less is utterly foolish and will result in shortened life. In the last analysis, smart living is playing the rules according to the game and thus developing for one's self a maximum of joy, happiness and length of life.

# WHAT A COUNTY MEDICAL DIRECTOR DOES

**John R. Conover, M. D.**
*Medical Director, Allegheny County*

WHY should there be any county service in Pennsylvania? As you know, in this great Commonwealth the care of the public health is under the immediate supervision and control of one department of the State Government. It takes the name of the field of its work and is called the Department of Health. The Department is so organized that special types of work are carried out by special bureaus, which are, namely, Bureaus of Sanatoria and State Clinics, Child Health, Communicable Diseases, Sanitary Engineering, Milk Control, Nursing, Public Health Education, Laboratories, Drug Control, Inspection, Vital Statistics and Finance. By the name of any bureau you can readily determine the nature of its work. And by considering for a moment the number of bureaus and nature of the work of each, you can appreciate how wide and extensive is the field covered by the Health Department.

All of the work of this Department, which is so vital to the health of all of us, is under the direction of an executive officer, whose title is Secretary of Health. In addition to the bureaus mentioned, there is an Advisory Board, which has the power to make "Rules and regulations pertaining to the public health." These rules have the same power as health laws and are enforced by the Secretary of Health through his organization. Not only does the Secretary enforce these rules but he also has the duty of enforcing the health laws passed by the General Assembly.

You may say, "Yes, that's all true, but how about our local Board of Health?" In Pennsylvania, each borough and first-class township, as well as all cities, is required by law to have either a board of health or department of health, which must enforce the health laws and regulations mentioned above. The second-class townships, as you will notice, do not have the authority to have a board of health. Second-class townships are under the direct administration of the State Health Department. Approximately 4,000,000 people live in these districts. The local Boards of Health are under the supervision of the State Health Department.

You will note that the power to enforce health laws goes directly from the state to the municipality and that no mention is made of a county board of health. Counties as such do not have power to supervise the health work. Yet in each county there is a medical director.

## The Reason for a County Medical Director

At this point you may want to know who owns a battleship? Of course the answer is the federal government. But does it? Each and every citizen owns a part. Naturally one couldn't point to any certain portion and say, "I bought that." But he can say, "I joined in a community effort and contributed my share to the total cost." And he might say the same thing about the services of a county medical director, because the latter is employed by the State Department of Health.

The county medical director is the official representative of the State Department of Health. His duties are many and varied because he has to do not only with each of the central bureaus mentioned above, but he also has to know how each local board of health enforces health laws. He also must know how each State Department of Health employee in his county carries out his work.

Your family physician and his consulting doctors are concerned with your individual case when you are sick, and with you only when they give instructions how to remain well. Whereas the C. M. D. (county medical director), on the other hand, has an entire county as an individual to keep from becoming ill and to help restore to normal should any sickness develop. His services do not belong to one but to all. He must constantly keep his finger on the pulse of the county in order to detect anything unusual which may lead to the ill health of his community body. He must be able to recognize dangerous enemies of health and be ready and able to overcome them. And in the forward development of the physical body of the community he must stand guard, warn of obstacles and guide around them. If an anchor of doubt or lack of knowledge prevents the forward motion towards perfect health, he must loosen it. Further, he must be at all times a source of authentic information on community health.

## Specific Duties

Some of the services of a C. M. D. are had in the abatement of nuisances. Each county is provided with state health officers who are under the county medical director's immediate direction. In abating a nuisance, it is first necessary to determine the facts. Should a nuisance exist, it then is required to determine who is the responsible party. The remedy is then indicated. All of this is done in a manner to show the individual concerned that he is affecting the community in a deleterious manner and that his duty is to correct the condition for the general good. If this procedure fails, the C. M. D. then has recourse to legal action, because the improvement must be obtained.

The county medical director also supervises the work of the health officers in their other work. He must see that sanitary surveys of each district are made in order to determine insanitary conditions and to have them improved. The same is true with camp inspections. This is done for labor groups as well as for those who camp as a matter of vacation and pleasure. In these inspections the sanitary condition, the water supplies, toilet facilities, are all made to meet state requirements.

Through the health officer the C. M. D. secures a certificate of health from all people who handle food in public eating places. Each such place is also inspected and recorded. If any infractions of the state laws and rules concerning eating places exist, steps are taken to have the place meet the requirements.

Complaints about overflowing septic tanks, improper disposal of garbage, dead animals, bad odors, flies, vermin, insects, lack of sewers, bad ventilation, lack of water, etc.—all come to the attention of the C. M. D.

Often complaints in which it is claimed the landlord has shut off the water from a tenant are made; these must also be handled in order to give the individual his proper service. Many complaints of varying natures are made to the C. M. D. who cannot act because they are not within the jurisdiction of the Health Department; and in these cases he must refer the informant to the proper authority for action.

## Fourth Class School Districts

In each county there are at least three classes of school districts, and in some there are four. Classification is based on population of the district. The first, second and third classes have school medical inspectors employed by the local school board. The State Department of Health inspects the fourth class schools. In some counties the C. M. D. makes some of these school medical inspections. As you know, this inspection is really a physical examination of each pupil for the determining of "physical" defects. In some counties the C. M. D. is also a "supervisor" of school medical inspectors and his duty then is to go to each school district and examine the work of the local medical inspector, and also to determine if the district is complying with state requirements. If not, he must assist the central office in obtaining the necessary corrections.

## Communicable Diseases

Just as your private physician is on call twenty-four hours in a day, so is your C. M. D. He must stand ready at all times to answer calls for assistance in diagnosing a communicable disease. He is frequently called in consultation on questionable cases and in rare or unusual ones which are thought to be communicable. He must visit every case of smallpox and direct the quarantining throughout its course. In cases of typhoid fever, he must secure a "census," which in reality is a complete record of the case, in order to determine where the patient picked up the infection. If the source is found, steps must be taken to destroy the infection. If the case is on a dairy farm or other place from which infection could be passed out, the sale of milk must be stopped or other necessary steps taken to prevent others from developing the disease.

In cases where there is disagreement over the diagnosis of a communicable disease, he must make the final diagnosis. He must see that children who have been excluded from school on account of some communicable diseases are not reentered until proof that they are no longer a source of danger to other children is given. The C. M. D. must see that children excluded from school on suspicion of a communicable disease comply with the law requiring a doctor's certificate of health before reentering.

Another duty is to have the health officers placard all cases of quarantinable diseases. A report of the case from the attending physician or the householder must be secured; the health officer notified; a report from him that the case is quarantined; a request for release from quarantine from the doctors in special diseases; and a notice that the health officer has released his cases promptly.

The C. M. D. must see that all local boards of health abate nuisances, quarantine cases and make inspections. He must have sight as well as insight in order to solve problems correctly and for the best good of the most people. He must allay undue fears and excitement caused by an epidemic or threatened one. But he must assemble sufficient information upon which action may be taken by the authorities. He must at all times realize that he is serving the public, that his patient is the county, and that his is a community effort.

## Midwives

Other work required by law, is the supervision of midwives. In some counties the C. M. D. is also an inspector of midwives. In this case he must examine applicants for license to practice midwifery, give them instruction, register them each year and give them an identification card, as well as inspect their equipment. Naturally, it is also necessary to see that midwives comply with the law. It is also necessary to supervise the follow-up work of the nurses with midwives; to see that the proper procedures are used to prevent infection in the eyes of the new born babies; and in case of any infringement of state laws, investigate and have the penalty imposed.

In each county there are many registration districts of births and deaths. The C. M. D. is to be acquainted with the services rendered by the local registrars and must handle complaints peculiar to this work in case they should arise.

Frequently the C. M. D. is called upon to make a mental examination of pupils retarded in their school work. In these cases he makes a special report to the school authorities. Other special examinations are made from time to time in schools such as for head lice or a threatened epidemic of measles or mumps. In all cases, he recommends a definite course of procedure.

In Pennsylvania, the law is very strict about vaccination to prevent smallpox. The C. M. D. is available to make the required test for entry into school. He alone has the power of issuing a certificate of disability permitting the child to attend school for a year without vaccination. And in cases where the Secretary of Health grants permission to have an immunity test for smallpox performed, the C. M. D. is usually appointed. This test demands special action by the Secretary.

In every county there are state nurses whose duties are concerned with clinics, baby centers, midwifery work, new births, home visits, school work, etc. The C. M. D. must at all times be ready to help them with their special problems, and is kept advised of their work.

It is the duty of the county medical director to know the needs of his county and to recommend the opening of well-baby centers and other clinics when they are needed. He must recommend the proper doctor for the work and assist in developing a local committee to help operate such clinics. He must also be familiar with the course of the clinic.

In order to prevent the spread of venereal diseases, the C. M. D. has the duty of committing cases which are a menace to the public health to institutions designated for the purpose. He may also commit cases of tuberculosis which by their character and habits have proved to be a serious menace to others.

Public water supplies and disposal of sewage are handled by the district engineer, but the C. M. D. in order to secure the best conditions for his county patient must lend his support to work planned by the engineers, and must also assist in showing the value of these improvements to the municipalities. The control of milk supplies is under similar arrangements. In some counties the C. M. D. has endeavored to develop local county milk units to augment the work of the state.

Garbage disposal in some counties is a serious problem. In those counties the C. M. D. makes a special effort to have the communities adopt the method of incineration or other plant treatment. Where piggeries exist he must inspect them. If the owners do not comply with the law the C. M. D. must take the proper steps to have the nuisances abated. This often requires meetings with councils and boards of health.

The C. M. D. must keep a record of these activities. He must receive weekly reports from each board of health and keep a record of communicable diseases, nuisances, commitments and quarantines. He furnishes an official report to the Central Office.

In addition to the foregoing, which is mandatory, the C. M. D. must develop means for circulating knowledge to all the people in his county, and to direct and assist in new developments. To do this, he must be in good standing in the county medical society and take an active part in the maintenance and function of social and welfare agencies, such as the Child Health Council, County Public Health Association, etc. He must give talks to Parent-Teacher associations, service clubs like the Rotary and Kiwanis, women's clubs and others which are interested in community betterment and progress.

The services of a county medical director are widespread in scope, definite and effective in purpose, and have demonstrated their merit, as is evidenced by the lowered death rate, lowered incidence of communicable diseases, and the general improvement in sanitary conditions.

# NOTES ON THE WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION

**Mary Riggs Noble, M. D.**
*Chief, Pre-School Section*
*Bureau of Child Health*

THE White House Conference on Child Care and Protection met in Washington as the culmination of a widespread study which had been made over the months of the preceding year.

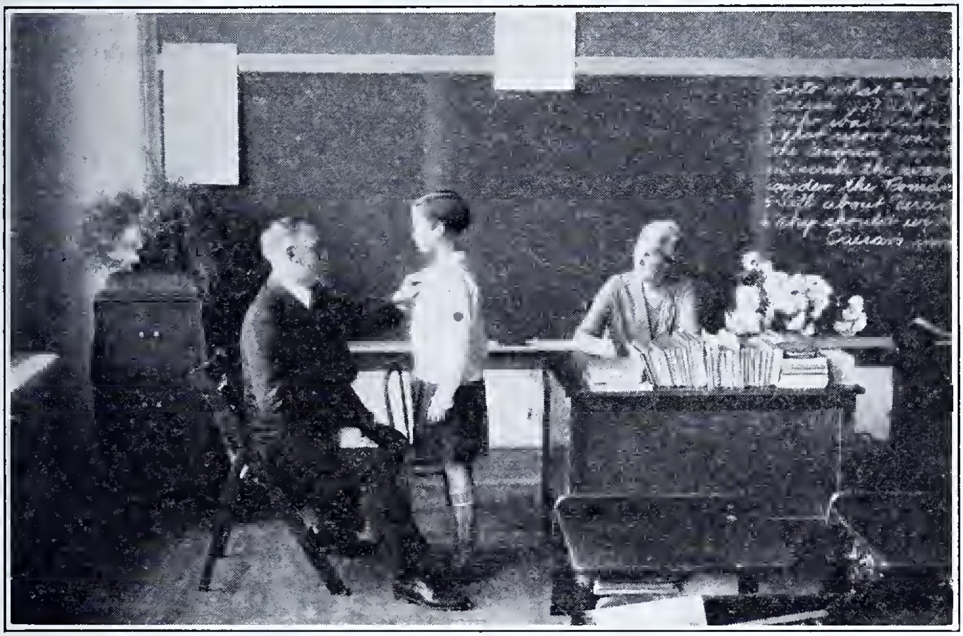
The conference was unique. There has never been before in all the world a conference on any subject based upon findings sought among so many thousands of people in every walk in life throughout a whole nation. Never were there so many ramifications of a subject pursued to such lengths or involving so many kinds of persons. As time went on special information, not thought of at first, but entirely relevant to the subjects, had to be sought by special persons, hunting along unusual channels for pertinent data. Professional and technical people of every variety and kind, having to do with child health, child-care institutions and agencies, and individuals concerned wholly or in part with children, were the sources from which the information could be obtained, and similarly in many cases the machinery by which the information was gathered. Thousands upon thousands of parents, and even the children themselves, were involved in the hunt for the light on the situation which the President had said he wanted. After all the searching, a well-defined, practical and reliable mass of facts would tell us the truth about the status of health and well-being of the children of the land; would show us what is actually being done to meet the multitudinous needs of childhood, would indicate what ought to be done, and how to do it.

It seems safe to say that never has there been such a complete example of nation-wide cooperation. The plan of committee organization was fairly simple, with expansion made possible through sub-committees of the various sections, so that a large choice could be exercised in personnel and every related professional individual or organization tapped for help in collecting data.

It appeared to some of the committee members, as time passed, that wise heads were eliminating unfortunate duplication in the information gathering. It was obvious from the first that many departments of child welfare of necessity overlapped, and that great bundles of facts collected once and for all, if properly "cleared" and cross-referenced, could shed light in several directions without duplicating inquiries to an irritating degree out at the ends of the trails where the questionnaire filling-in was done.

The only way to get the bulk of the information was by the questionnaire method but this method has grown to a pestilential prominence of late. There was reason to fear that the very sight of a questionnaire would induce such hostility and resistance as might entirely defeat the quest for information. Happily it was made abundantly clear as time went on that good cross-referencing was being done, that overlapping had been minimized in the central office and a corresponding willingness to "play the game" was fostered over the whole country. Real genius was shown in devising time-saving inquiries, with easy answering. The last questionnaire received in our office stated in big red type at the top of the page: "This is not a duplicate of any questionnaire you have already received."

The experiences of the Section on Medical Care of Children were most interesting. These committees had to ascertain who were doing anything, and what, in the pediatric world? Who were studying the child, or teaching about it? Were medical schools teaching pediatrics to the students and how? Sixty-three medical schools were asked and fifty-eight replied; forty-nine state medical societies were written to, forty-seven replied (wonders will never cease!). Forty-nine commissioners of health were written to, and forty-two replied.



**Medical Interest in the School Child is Becoming Progressively Intensified**

The committees would eventually draw up minimum essentials on the basis of the information gathered and submit recommendations to the whole section at the final meeting.

It was also necessary to go to the pediatrists of the land. From the A. M. A. directory were taken the names of those in every part of the country who were listed as specializing in children. Three thousand five hundred and sixty-nine physicians were thus questioned. In order to frustrate apathy or active resistance against answering questions, little personal notes from somebody who knew the doctor concerned were enclosed in the formal official communications, urging our respective friends not to delay or refuse to answer.

Over 3,000 hospitals treating children were written to, also 570 doctors in the pediatric service of dispensaries for such children, and 1,380 doctors in the ward service of children's hospitals.

Convalescent homes were investigated as to number, locality, facilities, districts served, and kinds of service rendered. Health centers, of what kind, sort and description were they? And of health promoting agencies, what did the country have to show in psychology, psychiatry, dental work, posture work? Not only the professional people allied immediately with these branches of science, but superintendents of education in 40 states were consulted. Nurses' training schools were asked what pediatric opportunities there were for their student nurses. Eighteen hundred and eighty-five were written to. Were nurses studying pediatrics? Was there a demand for such pediatric work and was there a supply of efficient public health nurses related to this specialty?

Nine hundred and sixty supervisors of nurses were questioned. One supervisor, with an unusually keen attitude toward her work, and with a fine corps of nurses under her, said that they had answered five questionnaires during the summer, each requiring field time and research.

Hospital social service had to be explored. How many hospitals have such a service? Who train workers for that service? What training do they need? Four hundred and ninety hospitals having hospital social service received letters and 1,324 individual social service workers were questioned.

A study had to be made of nutrition work and its relation to child health and protection—an enormous study. This entire task was done by a sub-committee with the generous help of the "New York Association for Improving the Condition of the Poor."

A special statistical study was made on infant mortality and certain diseases, and minor contributory information was assembled on vaccination laws and registration and even on the advertising of foodstuffs and apparatus.

It became apparent that not only must the possible supply of care and protection available be known, but it must be discovered how much fathers and mothers patronize the doctors and the dentists and the health centers or clinics and dispensaries. So a survey was made to discover how far preventive measures were used by parents in 200 cities and in the rural areas. The limits set to the inquiry were four subjects only and related exclusively to children of pre-school age: Were children given periodic health examinations? Were they taken to dentists other than when they had toothache or cavities to be filled? Were they vaccinated? Were they protected against diphtheria?

The choice of the cities, the choosing of the districts in each city selected for family visitation, the finding of an agency to make a survey, that is make a house-to-house canvass. Some one with a super-brain seems to have been at the focal point in the New York office for the survey went off as scheduled.

An army of clerks and machines was able to assemble and sort and clarify and give form to such a mass of information as had never before been harvested in any connection for any series of meetings on any subject, and when we foregathered in Washington it was impressive to experience the business-like procedures of four full days with so little platform time wasted, no side shows, or distractions, and every luncheon and dinner meeting devoted to subjects actually in hand, all for the purpose of shedding all the light there is.

# PENNSYLVANIA GOES EYE HEALTH

**Evelyn M. Carpenter, R. N.**
*Supervisor, Conservation of Vision*
*State Council for the Blind*

SOME one or a dozen persons have said, "This is the age of the child"—we would like to ask what age? Does the statement refer to the present century, or to an age group—the infant, or the school child, or both, and if so, what about the three, four and five-year-olds who fall in the pre-school class?

Ellen Key was more specific when she said, "This is the century of the child," and there can be no doubt that she meant all children and from the day of their birth until adult age. The infant and the school child have had much consideration, both from a physical and social point of view, but, unfortunately, there has been some oversight or shifting of responsibility in the matter of care for that great "No Man's Land" group of little people who have graduated from the infant stage and who are not old enough to go to school.

The press of getting ready for the new baby and caring for him when he comes, sending the older children off to school properly clothed and shod, making numerous and sundry visits to the dentist, the nose and throat doctor, and the eye clinic—not to mention the routine housekeeping—all these things and more which have to be done every day by a mother who may be none too well, are good and sufficient reasons why the runabout, or abouts, have to do a good deal of shifting for themselves. It is little wonder if they have not carried on in a manner to satisfy that wise medical council which established the standards for child health. The judgment of a three, four, or even a five-year-old is not always sound, and there are pitfalls waiting for him all along the way he happens to direct his small feet. There, for instance, is the rickets and poor-posture pitfall, the pitfall of malnutrition and decayed teeth, and a terrible sort of yawning crater at the bottom of which we know there is too much tonsil and too little vision. It isn't possible for many very small persons to go about among these pitfalls without occasionally falling into a few of them. Sometimes a real husky may scramble out with only a scratch or two; more often the pitfall conquers him and he has to wait for "First Grade" to pull him out. Sometimes especially if he falls into poor-vision pitfall, he even has to wait for "Third Grade" to come to his rescue, and whose fault is that?

Pennsylvania may have accepted its share of the blame in times past, but today it is a champion of the pre-school child and, as rapidly as machinery is made available, treacherous pitfalls are being covered most carefully, and thousands of little people who have unwittingly stepped into the open ones are being sought out to the end that their bruises may be treated and their wounds healed.

In 1925, the pre-school division of the State Department of Health equipped its first motor unit with everybody and everything necessary to make thorough physical examinations. A quest was started for little children in the rural sections of the Commonwealth. In 1928, a second car was purchased, thus doubling the service. The aim was to find children with hampering handicaps so that these might be corrected to begin school, free to grow and free to learn.

During the summer season the Health Cars have wended their interesting way in and out of country towns and villages and a total of 40,545 children have passed through the car doctors' hands, revealing thousands among them who needed medical attention.

In the spring of 1930, when the plans for the summer pilgrimage of the Health Cars were in the making, the State Council for the Blind made some inquiries regarding eye examinations, visual acuity, etc., and they were advised that the importance of securing such information was recognized and the medical staff would gladly increase the effectiveness of the vision testing which had heretofore been applied only to six-year-olds, and in a very limited way.

The Council for the Blind offered the services of one of its staff members to demonstrate a method of vision-testing which could be used with very young children and could be done by some member of the Health Car personnel other than the examining physician. The Council's offer was accepted, and thus two state departments came together acting cooperatively in an effort in behalf of the young child all the more effectively to discover physical defects and to stress the importance of their correction in order that he might meet the requirements for a sound physical, intellectual, social and moral development.

**The School Child is Vision Tested—the Pre-school Youngster, Also**

The method of vision-testing which was demonstrated and accepted for use by the pre-school division was one which originated, was perfected, and put into general use by the National Society for the Prevention of Blindness. Briefly, it is as follows: The Snellen Open E Chart is used and the symbol "E" by virtue of the imagination of the child and the ability of the examiner, becomes a small black table with three little legs, creating the "table" and getting the children to show with both arms the direction in which th leegs point. This is the principle upon which the acuity test or game is based.

When directions have been mastered, one learns to look through a little window which, when it is in place on the chart, blots out everything except the symbol the child is demonstrating. That step successfully passed, he learns to look from a distance of twenty feet. Then he has the intriguing experience of peeking with one eye. Carried through, step by step, comfortably and happily, the child reads the symbols with his mind and hands in a way quite as satisfactory as though he had read these letters—A—P—E—O—R—T—D—Z, or memorized them as so many children do in public school.

Testing for muscle imbalance comes next, and that is indeed thrilling, for it means covering one eye and with the other following an infinitesimal blue bird with a red breast around and around in circles, up and down, and finally being quite sure he lights on teacher's nose. There are two turns for everybody—almost always—occasionally a pitfall has kept an eye. It is tremendously important that the child whose eyes are not focusing properly should be taken to a competent oculist for correction of the defect before he has to concern himself with letters, with words and printed pages which await him in First Grade. Accommodation to light: the external appearance of the eyes and the lids are carefully observed and any deviations from normal are recorded. The children thus "screened out" are material for the opthalmologist and upon him rests the responsibility for correcting the errors in refraction making eyes straight and sounding the depths of pathological conditions in order to prevent unnecessary blindness and to conserve vision.

The simplicity of the method, its entire workability, as proved by its employment now over a long period of time, commend it for general use with little children. It should be as much a part of all explorations for the discovery of physical defects as any other detail of the complete physical examination in children from four to six.

## FOMITES

### A. J. Bohl

*Supervisor of Health Officers*

"UNCLEAN! Unclean!", the leper at the side of the road cries to the passersby. And the passersby avoid him, cross to the other side of the road, and hurry past, so as to eliminate the probability of contagion. The leper must utter this warning cry, he must quarantine himself, in a manner, so that no one may innocently contact with him and become infected.

Now the leper isn't a fomite, for a fomite is a "porous substance absorbing contagium." The leper is porous, all right, but he *emits* contagion. He cannot be a true fomite. He's a "person to person" transmitter.

It used to be thought that practically everything in the house in which there existed a case of communicable disease was a fomite, and that even the house itself was a source of infection. There were tuberculosis houses, and typhoid houses, in which people feared to live, lest they die of these diseases. Children, and even some of their elders, were not ashamed openly to avoid the house of sickness, even snub the block in which it was located. They carried their fear to extremes, but who can say that they weren't wise, after all, in so doing?

Following some diseases, mattresses, bedding and beds were burned, walls were scraped and repapered, and the house was filled with the noxious fumes of sulphur or formaldehyde, so that any contagium residing in or on fomites might be destroyed.

The idea back of all this was fine, but like many arguments and many theories it started with a false premise. In this case it was that the contagion did actually reside in some inanimate object. The real source of infection, the sick or convalescent patient, was not utterly disregarded, but the fact of "person to person" infection was not clearly understood, and this possibility was minimized.

Fomites were the order of the day, and it was and is true that they transmit infection in certain conditions. Let any inanimate object be contaminated, and let it be handled or placed in the mouth before the contagium has had time to be dried out and killed just by pure lapse of time, and the fomite is a real danger. Here are some instances.

A half century ago living conditions differed very much from those of today. There was not so much close personal contact as there is now, and there was not the "community" use of conveyances, places of amusement, hotels, restaurants, and so on, that now exists. Conditions were different, and the real fomites didn't have the chance they have now, or had not long ago.

Only yesterday, it seems, came the campaign against the "roller-towel." Hotels, railroad stations and other places having public wash rooms, all had them. Long loops of toweling hanging from a roller, so that each user could pull down a fresh dry place to mop his hands. It was another good idea, but after a dozen men had used the towel there were no more fresh dry sections, and the newcomer had to pick out the least soiled and dryest place he could find, and so on, ad infinitum. At the close of a hard day's work, the poor towel, which had started the day so bravely, so immaculately, hung limp, wet and filthy from its wooden roller. Black marks adorned or defaced it, according to your point of view. All in all it was a sad travesty on pristine, decent, glorious towelhood. But there it was, and you could either use it, or your handkerchief, or go wet.

But what of the hands that had used it, the clean, washed hands that had been "dried" on it, and had picked up from it bugs, bacteria, germs, molds, benign or malignant, straight, rodded, corkscrewed and chained, and had taken them away to fulfill their destiny elsewhere? What of those hands that were promptly poked into the mouths of their owners, along with a large gob of chewing tobacco, or which were used to pry out cinders from an eye or to relieve a tickle in the ear? Some of those bugs stuck, never doubt it. Maybe they weren't the bugs of communicable disease, or typhoid or diphtheria, but there are other bugs, plenty of them, that can cause trouble. The roller-towel, by the way, from its moist condition and location usually in a warm place, was an ideal place for the wholesale raising of germs.

And then, about the same time the roller-towel became passe came the rumor that it was not just quite all right for every one who ate or drank at a public place to use the utensils provided therein unless they had been cleansed. Of course, "cleansed" may mean almost anything, depending on who is doing the cleansing. It's disgusting to find a particle of dried food between the tines of your fork, but that is just because it is visible. Otherwise the fork may be as sterile as it may well be made. And conversely, a "clean" fork may be host to a perfect swarm of pathogenic organisms. They're small, you know, very small; millions of them could colonize on the head of a pin. And that very lack of size and visibility is what makes thorough washing and cleansing so necessary.

These towels and tools are fomites, in a manner of speaking, but they have rather had their day in the sun. They're under control now, what with paper towels, and paper cups and plates, and modern facilities for cleansing and sterilizing.

You've heard about "athlete's foot," caused by unclean floors in gyms and about swimming pools. You must have heard of it if you read the magazine "ads." Just some more fomites, these floors and mats, causing ringworm; sore, inflamed cuticle between and beneath the toes.

And now, here comes the climax. And miniature golf, the latest sport craze of America, is responsible.

Just the other day I picked up the weekly bulletin issued by the Chicago health authorities, and there, lo and behold, was the proof, the true and incontestible evidence, that fungi causing ringworm had been found on the leathered handles of golf clubs taken from a "pee-wee" course. There's no fooling about it, the tests were made in the laboratory of a high class medical school. They found that fungi pathogenic to the skin existed on each of the four clubs that was tested, and were grown in more than half of the cultures made. These tests were made in an attempt to find the reason why skin infections of the hands are on the increase, as observed by Chicago dermatologists.

Well there it is. We gave up common towels, and we tried our best to give up dirty eating utensils. They took the leather straps for strap-hangers out of the trolleys and gave us nice white enameled loops to hang on. I don't just know what's been done about the gyms and swimming pools, but I've seen fellows wearing fiber slippers to protect their feet. But this golf question's something else again. It's a blow at the very foundation of American life. Will we have to give up golf? Perish the thought!

## DEPARTMENT NEWS

FARM SHOW AFTERMATH—As most everyone knows, the Pennsylvania farm show held in the new state building in Harrisburg was unprecedented from the standpoint of the number and standard of exhibits and also attendance. Nearly 300,000 persons visited the show and many hundreds were especially interested in the excellent exhibit which was sponsored by the Department.

The photographic display of the Crippled Children's Hospital naturally attracted many visitors as also did the dental hygiene demonstrations which were conducted by Miss Jeffreys, supervising dental hygienist of the Department, who cleaned the mouths of many little children during the show period. The motorized laboratories, as well as the work of the pre-school section, also came in for a fair share of notice.

The Department maintained three first-aid stations manned by physicians and nurses. From the reports, it can be truthfully said that these booths were not only ornamental but extremely useful—many minor injuries and temporary illnesses having been cared for.

THE ANNUAL MEETING OF THE PENNSYLVANIA ASSOCIATION OF DAIRY AND MILK INSPECTORS—The annual meeting of this association which occurred during farm show week in Harrisburg and was climaxed by a banquet, was the most successful event of the kind in the association's history. More than 300 inspectors and others associated with the milk industry attended the dinner meeting where they were addressed by Dr. M. J. Rosenau, of the Harvard Medical School. He gave a delightfully interesting talk on the history, value and control of milk from the standpoint of health and disease prevention.

The officers elected for the present year are president, W. J. Lewis; vice-president, Dr. E. E. Romberger; secretary and treasurer, George C. Morris, of the Department's milk bureau, to whom by the way, much credit is to be given for the success of the annual meeting.

Incidentally, no one who was present at the banquet could possibly doubt the inherent wisdom of using daily more milk in some form. The fact that the United States heads the list in the consumption of milk and milk products is a satisfaction, but it will do you no good whatsoever unless you personally see to it that you are getting your share.

THE ENDICOTT-JOHNSON REPORT—The committee on the cost of medical care recently issued a comprehensive pamphlet dealing with the medical care for 15,000 workers and their families connected with the Endicott-Johnson Corporation, of Johnson City, which is one of the world's largest manufacturers of shoes and tanners of leather. The pamphlet indicates that this company carries a total budget of nearly $1,000,000 for use in the workers' medical service with a full time staff of more than one hundred.

More and more, large corporations are realizing not only the humanitarian but the economic advantages associated with the supervision of the health of their employes. It is not too much to say that hundreds of thousands of men, women and children, lacking the supervisory medical control now offered by many large industries, become victims of disease. Why is it that so many of us must be compelled to protect our health, and if compulsion is lacking, pay no attention whatsoever to it until we are down and out? Too bad!

KEPT BUSY—Because of the drought and the many requests for the examination of individual water supplies, the traveling laboratories have been continuously at work since the early part of May, 1930. Literally thousands of examinations and reports have been made by the personnel attached to these mobile units as well as by the Department's main laboratory at Philadelphia. This highly preventive activity has been one of the main causes for the continued low incidence of typhoid fever.

**Stream Gauging Because of the Protracted Drought was Carried on Throughout the Winter**

Public health policing works in an unspectacular but in an exceedingly efficient manner. If individuals would supplement such activities by the development of a real interest in their own personal health by living according to the basic rules of nature, a cooperation would be established which would amazingly cut down the present toll of preventable disease. Therefore, the slogan, "Take your troubles to the doctor before you know that you have any," is a worth while rule to apply. A long and healthy life is thus reasonably assured. Why not get busy?

SIXTY-THIRD ANNUAL MEETING—Announcement was recently made by W. Harry Archer, chairman of the publicity committee, that the sixty-third annual meeting of the Pennsylvania State Dental Society will be held at the William Penn Hotel on May 5th, 6th and 7th. A full program of papers and demonstrations has been arranged, together with several unique and new innovations. Also, an attractive social program for members and those accompanying them has been planned.

Preliminary reports indicate that the cordial invitations extended to all dentists and members of the American Dental Association has been received with an unusually hearty response. A record-breaking attendance is expected.

BIENNIAL REPORT—For the first time in a number of years the biennial report of the Department recently made its appearance in printed form. The volume contains the reports of the Secretary of Health, the Deputy Secretary of Health, the bureau chiefs and the section heads. In compiling it an effort was made to arrange the matter in an interesting narrative form. Really, it contains a mine of valuable information in most readable style. Statistics covering the year 1929, and which supplement the narrative, are combined in a supplementary printed volume under the title of "Pennsylvania Department of Health—1929." A limited number of both of these publications are available for distribution to health officers and others interested in public health work.

REMOVE THEM—A number of complaints are reaching the Department's bureau of engineering regarding the carelessness on the part of some owners in the disposal of dead animals, particularly horses.

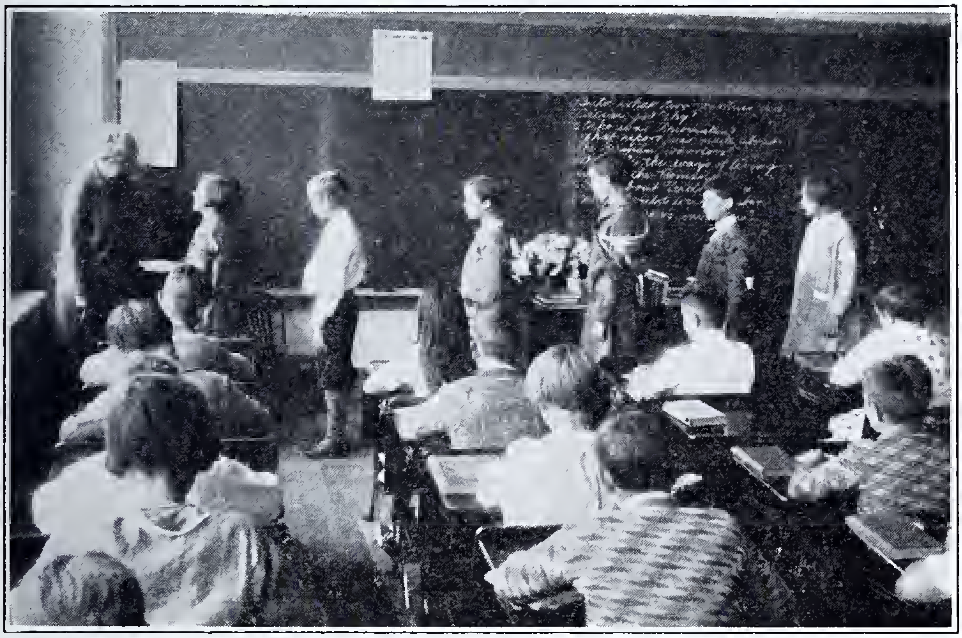
In discussing this situation recently, D. V. Ness, chief nuisance officer, stated that complaints of this character always increase as cold weather and heavy snows establish themselves. "Frigid temperatures," said Mr. Ness, "unquestionably affect the attitude of many persons where the disposal of large carcasses are concerned. Noxious odors not being so likely to develop, coupled with the attendant discomfort of making proper disposition of the animal, undoubtedly are important factors in this matter. Nevertheless, the law recognizes no season with regard to this matter.

"Under the regulation, animals must be properly buried or incinerated. Frequently, in lieu of these two methods of disposal, animal reduction plants will undertake removal free of charge even though the distance from the plant is comparatively great. It must be understood, however, that the obligation for the prompt removal of the carcass rests primarily upon the owner, and if he cannot be located, then upon the landowner on whose grounds the carcass happens to be. Health officers throughout the Commonwealth have recently been advised promptly to follow up delinquencies of this character and apply the usual procedure for properly enforcing regulations."

CHANGE OF ADDRESS—It was recently announced by the Secretary of Health that the Wilkes-Barre office of the Department's bureau of engineering has been moved into the Kirby Memorial building. It was also stated that the various clinics operated by the Department will also be centralized in the new location. Dr. W. F. Davison, the recently appointed medical director of sanitary district No. 26, which is represented by Luzerne county, also now has his headquarters in that building.

STARTLING FACTS—Dr. J. Bruce McCreary, deputy secretary of health and chief of the bureau of child health, recently divulged a number of startling facts with reference to child welfare in Pennsylvania.

Said Doctor McCreary, "Approximately 200,000 babies are born in Pennsylvania each year. While it is true that infant mortality has been materially reduced in this Commonwealth, this saving of infant lives has greatly increased the hazards of the growing child. Approximately 200 out of every thousand babies born alive who formerly would have died in the first year of life, now struggle through this period only to suffer from disease later which frequently causes death. Indeed, a large proportion of these little ones never reach adolescence and a still larger number never attain adult life.



**Schools and School Physicians Can Do Much for the Child's Health, But the Home Must Bear the Main Responsibility**

"Undoubtedly the condition of malnutrition can very materially be blamed for this sad result inasmuch as it creates a general bodily weakness which cannot overcome the nerve fatigue and nervous exhaustion incident to present day living. In this connection it is a surprising fact that of the 400,000 children in this Commonwealth definitely suffering from undernourishment, a great deal more than half of them are to be found in the rural communities where food is abundant and of easy access. This situation leads to the unmistakable conclusion that malnutrition is not due to lack of food, but to the improper types of provender," continued Doctor McCreary.

"If the end results in the form of lack of resistance to disease and a consequent multiplication of colds and communicable disease were not so great, the situation would still be bad enough. However, these improperly nourished young people represent the largest group of absentees from the schools among the 780,000 who are attached to the fourth class or rural districts, as well as a large share of delinquents in city schools.

"While health officials and agencies can and are doing everything to combat this widespread evil, in the last analysis the obligation rests directly upon the individual household. In view of the vital importance involved, parents whose information on nutritional matters is limited should contact with their private physician and thus obtain the proper professional advice," concluded Doctor McCreary.

It indeed seems to be a shame that in this land of plenty so many children become victims of premature death or devitalizing disease because of faulty food habits. From Doctor McCreary's statement it would seem that many more parents could with profit to themselves and their progeny find out what it is all about and guide themselves accordingly.

LARGE DISTRIBUTION—Roy G. Miller, chief of the supply section, recently reported to the Secretary of Health that during the last thirty days his division has distributed 417,900 units of diphtheria antitoxin; 261,451 of tetanus antitoxin; 200,025 vaccination outfits for smallpox; 254 complete immunization sets for typhoid fever; 161 Schick test packages sufficient for 8,000 tests; and sufficient toxin-antitoxin completely to immunize 18,500 children.

In this way, preventive medicine from a bacteriological standpoint is being ably performed by the Department.

RADIO HEALTH TALKS—During the past sixty days a number of radio talks have been delivered by Dr. C. J. Hollister, chief of the dental hygiene section, who broadcasts weekly over station WCOD, Harrisburg, Saturdays at 5:30 P. M., on the care of the mouth. It is understood that this feature will be continued regularly for the next few months.

Other Department speakers who have recently broadcast over WBAK, the state police station in Harrisburg, include Dr. Emlyn Jones, chief of the bureau of vital statistics; Dr. J. Bruce McCreary, deputy secretary of health; Dr. E. S. Everhart, chief of the venereal disease division; Dr. Mary Riggs Noble, chief of the pre-school section and J. Clarence Funk, chief of the bureau of public health education.

If the popularity of this information can be judged by the number of written responses reaching the Department, it is fair to say that these talks have met with general favor among a large group of interested listeners.

CHECK ON RURAL SCHOOLS—John G. Ziegler, chief of the sanitary section of the bureau of child health, states that during the past thirty days 2,170 fourth class school buildings have been inspected by personnel under his supervision for the purpose of checking up on the heating, lighting, ventilating and sanitary facilities. This brings the total number of buildings thus inspected for the present school term up to 10,000.

Mr. Ziegler also reported that during the same period, through medical inspection, 49,934 children in these same districts have been advised to seek medical treatment for discovered defects, bringing the total for the present school system in this line of activity up to 117,885.

More than one-third of the major defects have already been corrected. Parents, this is real cooperation on your part!

VISIONAL DEFECTS—Dr. Mary Riggs Noble, chief of the preschool section of the bureau of child health, and Miss Evelyn Carpenter, supervisor of conservation of vision of the Welfare Department, are now engaged in checking up on the treatment which was advised for more than 300 children who were discovered to be suffering from visual defects during last summer's annual round-up of pre-school rural children. Reports being received show that a large proportion of corrections have already been made by the private physicians to which all the cases were referred.

NATIONAL PUBLICITY—Two articles by Department personnel recently received national attention. The first, entitled, "Advertising and Health," appeared in the *United States Daily* and was written by J. C. Funk, chief of the bureau of public health education; the second, by A. J. Bohl, supervisor of health officers, carried the title, "Much Ado About Nothing," and was a very interesting discussion of the respective merits of white and whole wheat bread. It appeared in the pamphlet known as *Food Facts*, published by the National Food Bureau.

NEW CONSTRUCTION—The Secretary of Health recently reported that the boroughs of Pottstown and Norristown as well as Upper Moreland township, Montgomery county, have voted in favor of loans which will make possible the construction of sewerage systems.

On this subject the Secretary of Health said, "This action is a source of much gratification to the Department inasmuch as it will be the means of developing an improvement in the condition of the Schuylkill river so far as the pollution from these localities is concerned."

It is to be hoped that many other municipalities will take heart and do likewise. At best, the Schuylkill river is a tough problem, as everyone knows.

GARBAGE REMOVAL—The engineering bureau is at present engaged in removing a number of nuisances in Allegheny county which have arisen because of the improper disposal of garbage from certain boroughs in that jurisdiction.

Howard F. Bronson, housing engineer, is cooperating in this work with Dr. J. R. Conover, county medical director for Allegheny county. Five injunctions have already been established against individuals and companies who have been charged with the illegal disposal of garbage material.

Commenting on this situation Mr. Bronson said, "The Department is making a determined effort to remove the nuisance factor connected with the disposal of waste food material which for some time has been in existence in a number of boroughs in Allegheny county. There are approximately thirty offenders who at the present time are being investigated with a view to instituting legal proceedings, as has been done in five other cases. At the present time adequate incineration and reduction facilities are now available in or adjacent to the localities involved. Quite evidently, the cost item for the use of such plants now in operation, or for the erection of new ones, has been the determining feature for the use of the present method on the part of private garbage collection contractors. This method which merely dumps garbage in semi-remote places is insanitary and unhealthy. There is apparently no excuse for the existence of such conditions. The Department is making every effort to abate them."

It seems that in this instance a little more cooperation is required. Here's hoping that the Department gets it.

THE FOE OF YOUTH—This is the slogan for the 4th annual educational campaign to be conducted in April by the tuberculosis societies. This health effort is planned and managed by the National Tuberculosis Association and in Pennsylvania is under the auspices of the Pennsylvania Tuberculosis Society and its 100 affiliated organizations. This year's campaign follows similar ones held under the name Early Diagnosis Campaign.

In carrying out this special health effort the tuberculosis societies have the assistance of medical, health, social, civic, labor, religious, fraternal and other groups. The special material includes literature, posters, motion pictures and electrotypes. The three important pieces of literature are a four-page leaflet entitled, "The Foe of Youth"; an eight-page leaflet entitled, "Tuberculosis and the 'Teen Age," and an eight-page leaflet entitled, "Laennec the Listener."

Tuberculosis the Foe of Youth

Tuberculosis abstracts, which are printed monthly in the Journal of the Medical Society of Pennsylvania, for April will be on the subject, "Tuberculosis Among High School Pupils."

Special material for physicians includes a 32-page booklet entitled, "Childhood Type of Tuberculosis." This is a revised edition by Dr. Henry D. Chadwick with material contributed by Dr. J. Maurice McPhedran and Dr. Eugene L. Opie, both of the Henry Phipps Institute, Philadelphia.

NEW CLASSIFICATION—It was recently announced by the bureau of vital statistics that sixteen communities in the Commonwealth have advanced into the urban classification. Which indicates that these places have attained a population of 10,000 or more.

Beginning with 1931, statistical tabulations will be made for the following places: Arnold, Bellevue, Clairton, Conshohocken, Coraopolis, Dormont, Ellwood City, Franklin, Hanover, Kingston, Latrobe, Lewistown, Munhall, Taylor, Turtle Creek, Vandergrift and Waynesboro. Of these, six are in Allegheny county and three in Westmoreland county.

According to the 1930 census, Pennsylvania has 92 localities over 10,000 population; 25 over 25,000; 15 over 50,000; 5 over 100,000 and one over 1,000,000. It's a great state!

A FINE RECORD—Dr. C. J. Hollister, chief of the dental section, recently submitted a complete statistical report of the work done by his section for the school year of 1929–1930.

The state totals indicate an extremely comprehensive piece of work accomplished as indicated by the following figures: The total number of dental cleanings given by the hygienists throughout Pennsylvania amounted to 48,061; this figure does not include 48,224 mouth examinations where no cleaning was necessary. Corrective advice cards which were issued to 115,841 pupils, were returned signed by the dentists indicating that corrections had been made to a total of 44,660. The number of cavities found in the permanent teeth totaled 336,232, while in the temporary teeth they reached 467,396.

The condition of the teeth of the children is set forth by the following figures: clean, 65,122; fair, 67,805; dirty, 32,171; number of abscesses found, 16,412.

The figures on the use of the tooth brush appear to indicate that less than half of the children examined are daily using this essential prophylactic medium. The figures are as follows: 81,359 made use of the tooth brush daily; 63,660 only occasionally, while in 22,140 instances it was not used at all.

On this phase of the situation, Doctor Hollister said, "The widespread education in the form of talks, bulletins and the large advertising spreads by manufacturers of tooth pastes would justify the inference that the American public is by this time sold to the regular use of the tooth brush. The figures just cited are very eloquent evidence to the contrary. It may reasonably be adduced that the carelessness on the part of the children reflects in turn a definite carelessness on the part of their parents."

The educational activities of the dental hygienists in the schools are shown by the following figures: talks and drills, 17,908; home visits, 3,419.

A MOVING PICTURE—The Department is advised that the United States Department of Commerce, through its bureau of mines experiment station at 4800 Forbes Street, Pittsburgh, is in a position to circulate upon request a one-reel film of standard size dealing with the carbon monoxide automobile hazard.

According to those who have seen this film it very vividly emphasizes the great risk which accompanies the operation of automobiles in closed garages. In view of the numerous deaths from this cause during the winter months, a picture of this kind should be of great value. It may be obtained either by direct request to the Pittsburgh office of the Department of Commerce, or through the State Health Department at Harrisburg.

LECTURES ON SOCIAL HYGIENE—A report recently prepared by Dr. Edgar S. Everhart, chief of the venereal disease section, states that R. S. Caldwell, staff lecturer, during the last four months has delivered 120 addresses on the subject of social sanitation before high school groups throughout Pennsylvania. It is estimated that this information has reached more than 22,000 pupils.

On the theory that ignorance of results is frequently the cause of moral lapses, with its consequent venereal toll, information is being given to young people in order that they may at least be informed as to the disease possibility of irregular conduct.

A picture entitled, "The Science of Life" has been added to the Department's library. It is in 12 parts, and is a still, not a moving, picture.

AMERICAN MEDICAL ASSOCIATION—The annual meeting of the American Medical Association for 1931 will be held in Philadelphia, June 8-12. This is the most important and largest medical meeting in the world and should be attended by all physicians. The Section on Preventive Medicine and Industrial Hygiene will have an interesting program, as will other sections. Full announcements will be made in the Journal of the American Medical Association.

# Vital Statistics Comment

## THE AUTOMOBILE AS A FACTOR IN MORTALITY

**Florence Hardy**
*Assistant Statistician*

THE automobile as a factor in mortality is one of the most baffling causes of death, especially to leaders entrusted with the care of preserving human life. Medical science has turned its energies to the cause and cure of disease. By the installation of safety devices, and with the aid of progressive legislation, hazards in shop and home have been materially reduced. It is the travel accidents which exact the heaviest toll. Although fatalities resulting from railroad accidents have decreased in twenty-five years, the increase in deaths caused by the automobile has offset the reduction in train casualties. This is due mainly, to the more extensive use of the automobile as a means of transportation and to the carelessness with which it is operated.

In 1906, there were 19 fatal accidents in Pennsylvania due to automobiles and 238 caused by "injuries by vehicles and horses." In 1929, the total number of deaths attributed to motor vehicles was 2,331. Of these, 121 resulted from collisions between automobiles and railroad trains and 51 from mishaps involving an automobile and street-car. The 1929 figures represent an increase of 251 deaths over the 1928 sum. It is estimated that in 1929 there were over 30,000 automobile fatalities in the entire country or more than 3,000 over the preceding twelve month period.

One of the most serious aspects of the situation is that the automobile is no respector of persons. Age, sex, color or social condition do not furnish immunity from attacks of the "horseless carriage." Dividing the state into three broad age groups, there were in 1929, 545 fatal injuries in the ages under 15 years, 967 in the period 15–44 years and 819 in the group, 45 years and over. In the latter division 114 of the total were deaths of persons 75 years of age and over. The largest number of fatalities occurred among children five to nine years old.

According to a news release issued by the Federal Bureau of the Census, Pennsylvania's rate (24.3) ranks slightly lower than that of the Registration Area (25.4). In actual number of deaths the Commonwealth was second from the highest with New York leading the list. The highest rate in 1929 was registered in Nevada while North Dakota filed the lowest rate. In comparing the death rates from automobile accidents of one community with another, the element of place of accident must be considered. The rates of many cities are considerably augmented by deaths which occur in city hospitals but which were caused by accidents outside the city limits. The importance of this item is illustrated in the rates of Pennsylvania's five largest cities:

**Death Rates from Automobile Accidents Per 100,000 Population, 1929**

| | *Rate Based on Total Number* | *Revised Rate** |
|---|---|---|
| Erie | 40.0 | 20.9 |
| Philadelphia | 20.6 | 18.2 |
| Pittsburgh | 30.6 | 22.5 |
| Reading | 30.0 | 18.2 |
| Scranton | 35.0 | 21.0 |

*Exclusive of collisions with railroad trains and street-cars and accidents occurring outside of city limits.

The following table gives the mortality ratio from automobile accidents registered in the cities of the state over 25,000 population. These rates are computed on an annual basis for 1930 and include collisions with railroad trains and street-cars and also accidents which occurred outside the city.

### Death Rates from Automobile Accidents, 1930
### (Jan.–Nov., Inclusive)

| | *Rate** |
|---|---|
| PENNSYLVANIA | 24.1 |
| Aliquippa | 16.0 |
| Allentown | 17.7 |
| Altoona | 32.0 |
| Bethlehem | 9.5 |
| Chester | 40.9 |
| Easton | 44.6 |
| Erie | 42.5 |
| Harrisburg | 57.4 |
| Hazleton | 59.7 |
| Johnstown | 55.8 |
| Lancaster | 34.8 |
| Lebanon | 68.8 |
| McKeesport | 44.1 |
| Nanticoke | 58.9 |
| New Castle | 24.8 |
| Norristown | 55.1 |
| Philadelphia | 12.9 |
| Pittsburgh | 34.9 |
| Reading | 25.7 |
| Scranton | 31.4 |
| Sharon | 42.3 |
| Wilkes-Barre | 41.8 |
| Wilkinsburg | 37.1 |
| Williamsport | 26.3 |
| York | 13.9 |

*Rates are per 100,000 estimated population per year.

# PENNSYLVANIA DEPARTMENT OF HEALTH

### *Executive Office*

Secretary of Health—THEODORE B. APPEL, M. D.

Sanatoria and State Clinics:

1. Mont Alto Sanatorium—Medical Director, R. H. McCutcheon, M. D.
2. Cresson Sanatorium—Medical Director, T. H. A. Stites, M. D.
3. Hamburg Sanatorium—Medical Director, H. A. Gorman, M. D.
4. State Hospital for Crippled Children—Francis S. Chambers, M. D.

Deputy Secretary of Health—J. BRUCE McCREARY, M. D.

Child Health—School Control

1. Field Supervision—C. W. Sheldon, M. D.
2. School Sanitation—John G. Ziegler
3. Pre-School—Mary Riggs Noble, M. D.
4. Dental Hygiene—C. J. Hollister, D. D. S.

### *Bureaus*

Communicable Diseases ........................ J. Moore Campbell, M. D.

1. Epidemiologists—Harold B. Wood, M. D.
   Samuel J. Dickey, M. D.
2. Genito-Urinary Diseases—Edgar S. Everhart, M. D.
3. Restaurant Hygiene—Howard M. Haines
4. Tuberculosis—John B. Critchfield, M. D.

Sanitary Engineering .................................. W. L. Stevenson

1. Water Works and Sewerage—H. E. Moses
2. Roadside Water Supplies—Henry P. Drake
3. Industrial Wastes—F. E. Daniels
4. Housing—H. F. Bronson
5. Nuisances—D. V. Ness

Milk Control ............................................. Ralph E. Irwin
Nursing .................................................. Alice M. O'Halloran
Public Health Education ................................ J. Clarence Funk
Laboratories ............................................. John L. Laird, M. D.
Drug Control ............................................ James N. Lightner
Bureau of Inspection ...................................
Vital Statistics ......................................... Emlyn Jones, M. D.
Finance .................................................. C. T. Williams

1. Accounts—E. J. MacNamara
2. Supplies—Roy G. Miller

### *Advisory Health Board*

Chairman—Theodore B. Appel, M. D., Secretary of Health, State Capitol

*Members*

Howard C. Frontz, M. D., Huntingdon
J. M. Wainwright, M. D., Scranton
A. A. Cairns, M. D., City Hall, Philadelphia
S R. Haythorn, M. D., Pittsburgh
C. B. Auel, M. E., Pittsburgh
Charles F. Mebus, C. E., Glenside

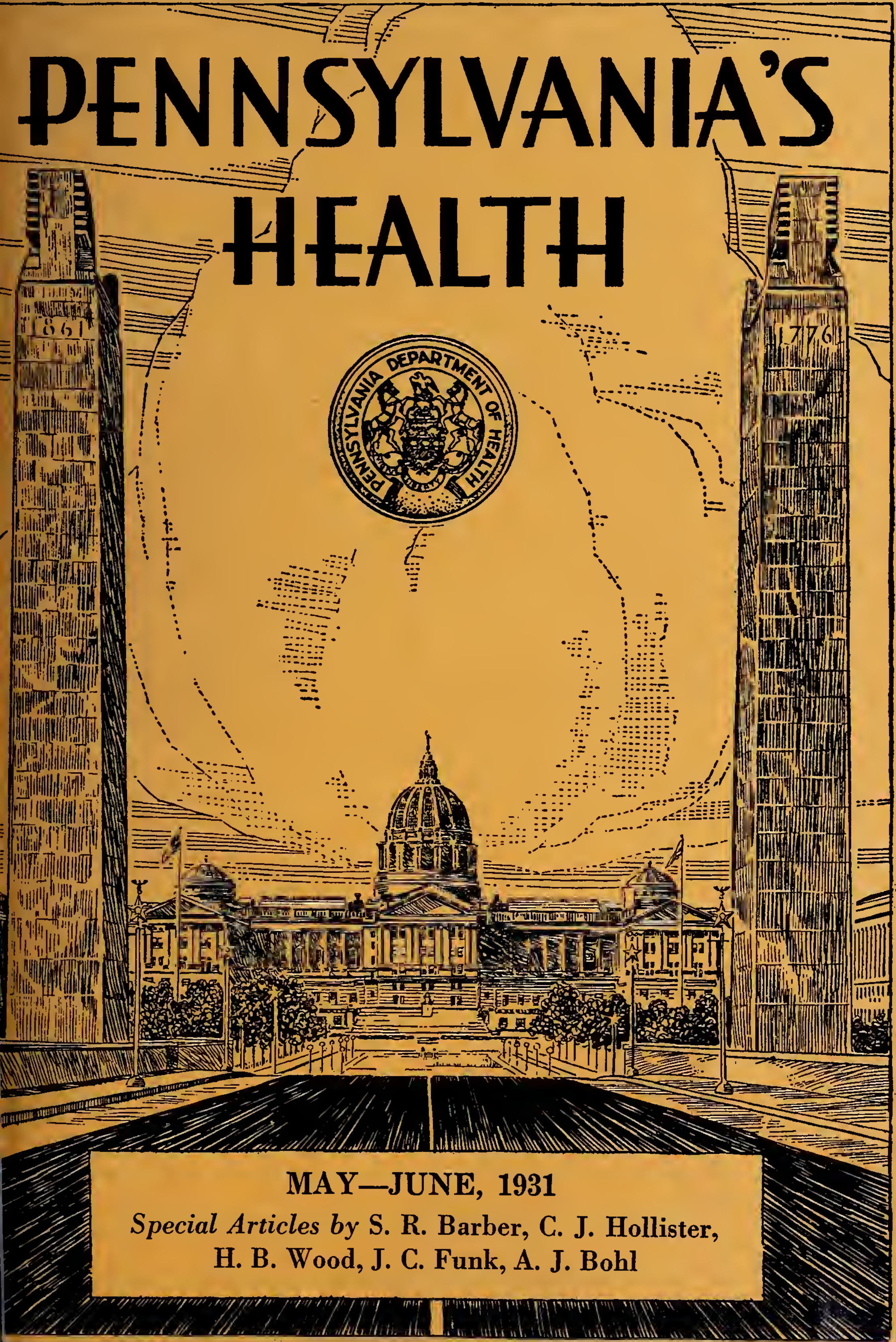
### *Sanitary Water Board*

Chairman—Theodore B. Appel, M. D., Secretary of Health, State Capitol

*Members*

Charles E. Dorworth, Secretary of Forests and Waters, Bellefonte
Nathan R. Buller, Commissioner of Fisheries, Pleasant Mount
P. T. Davis, Clearfield
J. Norman Henry, M. D., Philadelphia
Elmer A. Holbrook, Pittsburgh
Chief Engineer and Secretary—W. L. Stevenson, Harrisburg

# PENNSYLVANIA'S HEALTH



**MAY—JUNE, 1931**

*Special Articles by* S. R. Barber, C. J. Hollister, H. B. Wood, J. C. Funk, A. J. Bohl

# Pennsylvania's Health

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North Entrance Crippled Children's Hospital, Elizabethtown, Pa.

# Editorial

## MASTER CRIMINALS

IF the newspaper accounts are to be credited, and no doubt they can be, the United States possesses its fair share of criminals. But the very fact that their names are spread in big type on the first page of metropolitan dailies in itself deprives them of the title "master."

The master criminal conducts his sinister practices under the directive power of his super-intelligence; and thus, more often than otherwise, escapes detection and punishment. Moreover, he knows his game thoroughly and plays it with great cunning, seldom showing his hand. By comparison he makes the youthful quick-trigger bandit look like the dumb little, drug-excited piker that he really is.

In many respects diseases possess similar characteristics. Little criminals like headaches, gastric disturbances and many other minor afflictions put their cards face up on the table. By means of aches and pains they give unmistakable and quick notice of their presence, thus enabling the victim to establish a prompt defense action.

No so, however, with the masters. They are indeed much too sharp to make their presence known. Confident of their killing power they work stealthily, set the stage for a perfect crime—and get away with it!

So successful have they been that the disease rates for cancer, heart conditions and diabetes have alarmingly increased during the past few years. Tuberculosis alone, of this insidious group of high-powered gentry, has been driven out of its old haunts and in consequence has been compelled to fight more openly. Gradually it is relinquishing its strangle hold and is losing caste with its former diabolical companions.

But the sad fact remains that the other members of this powerful group, instead of getting weaker and less crafty, become more vicious and death-dealing as the weeks and months go by. And in this unfortunate situation the police power of state and local health departments is entirely helpless.

Be that as it may, the fundamental principle in crime prevention applies just as forcefully to the master criminals as it does to crime generally. And in this principle the key secret is prompt detection.

It seems a bit strange that with a weapon at hand, these master killers are permitted to continue their devastating work. But they do so nevertheless.

It should be understood that these diseases cannot stand the light. Like bats and owls they do their work in the dark. The periodic physical examination, making possible early diagnosis, is the luminous ray and the one weapon before which these killers cringe in defeat. Why not use it? Death to the master criminals!

# WHAT HAS HAPPENED TO THE PURE FOOD LAW?

**Solon R. Barber**
*Chief, Information Service*
*Food and Drug Administration*
*U. S. Department of Agriculture*

BRAVE men have returned from wars and, to their surprise, found it necessary to give good reasons why they were not dead. In spite of careful systems of compiling vital statistics, announcements of deaths not substantiated by biological truth occasionally have crept into the news and into official records. This is not strange when one considers that so vital and popular a person as the late Mark Twain once had to deny rumors of his own demise.

Recently, it has become desirable to deny the death of a very much alive and smooth-running organization, the Federal Food and Drug Administration.

Rumors about this Administration are widespread. Some of them may be of the "wishful thinking" variety, some touched with regret.

A neighbor told me a short time ago that the food and drugs act was a dead letter. "The act is no longer enforced," he said. I thought it judicious to explain just why this act is, today, very much in evidence among respected laws of the nation. The agency enforcing the act decidedly has not gone the way of the many dubious and unwholesome food and drug manufacturers whom the law, in twenty-four years' operation, has discouraged from continuing in the food- and drug-manufacturing business.

Memories of the hectic years immediately following the law's passage, still within the experience of people of mature years, may have contributed to the somewhat popular belief that the law is no longer on the books; for enforcement, in those days, was of a nature to be news anywhere.

Conditions in the food and drug industries before and shortly after the law was passed (June 30, 1906), were, to put it mildly, very bad. Adulteration was quite frequently encountered in practically all manufactured foods on the market. The same applied to drugs. It was no job for government agents to collect adulterated products. It was more difficult to find foods and drugs that were not sophisticated with foreign material of a questionable or harmful nature. Spices were adulterated with ground nut hulls or with sand or shells. Extracts, containing no flavoring ingredients at all, were common. Tomato canners often threw all waste material, skins, cores, and decayed tomatoes, into a barrel, tossed some benzoate of soda into the product and then, at the end of the season, worked it up into catsup. Medical charlatans and quacks traveled everywhere, selling their worthless or injurious goods almost without restriction. Important elements in the food and drug industries were against the passage of the food and drugs act. But the act was passed. During the first few years after its passage, however, certain sections of the industry were just as bitter against its enforcement as they had been against its initial enactment. Later, that same majority changed its mind.

The world has not reached that Utopia of a completely law-abiding people. There is no evidence that the mere enactment of corrective legislation has produced a population 100 per cent law abiding. Furthermore, the enforcement of a man-made law has never in the history of the world been completely effective.

**Federal Inspectors Sampling a Shipment of Imported Cocoa Beans**

The federal food and drugs act, while not perfectly enforced, has been so successful in checking the very abuses it was designed to prevent that it has become largely forgotten by the very people who demanded its passage. The effectiveness of this law may be gauged by the vast change for the better that has come about in the food and drug industries in twenty-four years of the measure's enforcement. Nevertheless, there is plenty of room for improvement and an equally great need for increased facilities to give the law more adequate coverage. One penny per capita per year is not a very high price for the people to pay for this valuable form of health and economic insurance. Nor are 550 employees, only half of whom are technicians, to be considered a staff large enough to cover a nation, as well as to make sure that all imported foods and drugs are of lawful character. Those who would be hasty in judging the effectiveness of the law and who wonder why it is not possible for the Government to take instantaneous action against violators should remember those facts. They should remember also that twenty-two complicated steps are necessary from the time when violative goods are seized until a case is closed. This, combined with the chronically crowded condition of our courts, may delay a judgment. To obviate such delay as would prove dangerous to the public health, the law has certain provisions for seizures. This, together with the willingness of the Administration to cooperate with the trade—becoming more and more part of the philosophy of enforcement—makes it possible to forestall many serious abuses which would demand criminal prosecution. There is need for additional strengthening of the measure, however, particularly at this time when certain influential economic forces seem very eager to dismember it.

From the beginning, the national pure food law has had two objectives, both of which are part of the one great purpose of the act, namely, to protect the public. The first objective, to safeguard the purity of food and drug products, is quite logically followed by the second, to enable consumers to avoid economic fraud. Enforcement of the act is vested in the Federal Food and Drug Administration. The Administration is charged with the enforcement of five other laws, the tea act, the import milk act, the naval stores act, the caustic poison act, and the insecticide act. Since we are concerned here only with the food and drugs act, no additional mention of the others will be made.

**Sampling Imported Olives on the Docks**

I mention briefly some of the corrupt practices which the law was designed to prevent. I spoke of gross abuses in the foods field and of the sale of worthless nostrums which, in many instances, were actually dangerous to health. As soon as the act became effective, however, many of these conditions were immediately corrected. Others took investigations of the most difficult sort before a violation could be proved. The Administration uses two methods of getting evidence. First, the inspection of factories by inspectors trained to ferret out violations. Second, the laboratory examination of actual shipments of foods and drugs. In these examinations, the Government specialists make use of the latest developments in science. If evidence is to be worth while, it must be borne out by analysis of the particular interstate shipments against which legal action is planned. In the early years, this work progressed very slowly because methods of analysis had to be worked out and their accuracy tested and checked. Even today, when a new violation is found—and they are constantly being found—the Administration is sometimes hard pressed swiftly to establish methods of proving that adulteration beyond a doubt.

Sad to say, the adulterator is always about one jump ahead of the enforcing agent. We may illustrate this with tomatoes. Years ago, it was a common practice in the manufacture of tomato catsup to use the tomatoes after a sketchy washing, just as they came from the field. Now in most seasons, tomatoes are often cracked, partly decayed, or dirty as they come from the field. The Government had no difficulty in getting manufacturers to wash their tomatoes properly, but it was something else again to prevent them from using bad quality or even decayed fruit. In making catsup, the tomatoes are run through a machine called a cyclone, which reduces the tomatoes to a pulp. Unfortunately, however, it thoroughly mixes with the good material any decayed or moldy matter. At first, it was very difficult for inspectors to detect the presence of mold in tomato catsup, and the presence of mold in tomato catsup is classed as an adulteration under the food and drugs act. The Government took the problem to the laboratory and the scientific research of B. J. Howard, of the Administration, bore fruit in a system of examining catsup under a microscope in such a manner that the fine mold filaments, present in the rotten material, could be detected and actually estimated to a close figure. The application of the Howard method of analysis, plus the continued pressure of legal actions against those manufacturers who neglected essential precautions in the way of sorting and destroying decayed tomatoes, has resulted in a radical reformation.

This is but one illustration of how the enforcement of the food and drugs act protects the public from adulterated and misbranded commodities. While the wording of the law itself does not necessarily provide for research operations incident to enforcing the measure, the Administration recognizes the necessity of progressive and continuing study of new forms of adulteration and sophistication of foods and drugs in order to enforce that statute. For this purpose, the Government maintains laboratories and employs scientific investigators. The food and drug industries are flexible and constantly changing. A manufacturer who violated the law and was prosecuted five years ago may be entirely out of business today; whereas some new operator, not conversant with the law's provisions, may have started business in the same field. Additionally, hundreds of new foods and drugs appear on the market annually. The last few years have seen the appearance of numerous "vitamin" preparations, fat-reducers, influenza "cures," etc. These, and many other more or less new products, naturally require an organization flexible enough to proceed not only against old forms of violation—which have a habit of recurring—but the scores and hundreds of new violations incident to a trade that is by no means stagnant or unchangeable.

Nevertheless, the food and drugs act is undoubtedly better enforced today than ever before. Enforcement efficiency is heightened by the field-station plan. The eighteen stations are assigned to three districts: the Eastern, Central, and Western. Chiefs of branch laboratories are chiefs in truth, and both chemists and inspectors are accountable to them. Station chiefs in turn are accountable to district chiefs and they to the central headquarters in Washington, D. C. Campaigns are carefully planned in advance and followed vigorously. But they are made sufficiently elastic to permit special assaults upon strictly new forms of violation, as illustrated by recent influenza epidemics which encouraged the manufacture and sale of so-called influenza "cures." Station officials are constantly examining manufacturing establishments and reporting their findings to their district headquarters. If they find that a certain establishment is turning out goods of questionable nature under the law, they follow shipments of these goods entering into other states and instruct inspectors on duty at stations in those states to take samples and institute appropriate action where there is a violation. The increase in working funds granted the Administration by the 71st Congress, and made available for the fiscal year 1932, will undoubtedly heighten regulatory efficiency and make it possible for the organization to extend its operations into fields which have been neglected in the past due to the shortage of money.

**Canned Goods Being Examined by a Government Chemist**

The Administration, however, by no means considers its duties solely and strictly punitive. It feels that preventing violations of the act is nearly as important as punishing violations after they have occurred. Contrary to rather widespread opinion in the trade, the Administration is always ready to give advice and instruction to members of the trade who come seeking such advice and instruction. A prospective manufacturer of pills, for example, if he brings his proposed formula and labeling before administration officials, may secure advice on whether that formula and labeling will meet the requirements of the food and drugs act. In this way, many possible future violations are avoided and the public is correspondingly protected. News of this form of protection never reaches the public. Much of the news of court-case protection, coming about through prosecution of offenders, also never reaches the public. And perhaps the fact that the great majority of operators in the food and drug industries are obeying the law, and consequently never get into the news, has had something to do with my neighbor's erroneous belief that the food and drugs act is a dead letter and that the law is no longer being enforced.

# The Health Gnome Says—

It should be an easy matter
To be healthy in these days;
For the magazines and radio
Point out a thousand ways.

Indeed, it ought to be unique
To find any person sick,
As the many published aids to health
Almost give to one his pick.

But with all these vaunted hints
To purchase pristine vim;
There are thousands upon thousands
With vitality quite slim.

The fact exists quite plainly,
That health cannot be bought;
It turns its back on dollars—
It insists that it be sought.

So start a quest for vigor,
Work hard for health and vim;
Obey the basic living rules
And thus get in fighting trim.

No other plan will pay you—
Fads, fancies and the like,
Make healthy pocket-books indeed;
But don't make a healthy life.

*J. C. F.*

# A RATIONAL DENTAL HYGIENE PROGRAM FOR MUNICIPALITIES*

**C. J. Hollister, D. D. S.**
*Chief, Dental Section*

A RATIONAL dental hygiene program for municipalities, regardless of size, is one which can be economically and efficiently applied to do the greatest good to the greatest number.

Ebersole's Merion School Experiment in Cleveland twenty years ago proved, beyond a doubt, what a clean healthy mouth means to a school child. And if it were possible, from an operative and financial standpoint to give all children this type of service we would not now be trying to find other means of solving the dental defects problem. While the results of that experiment proved that the money and time required were a very worthwhile investment considering the improvement in the individual child, the taxpaying public then, as now, are not toothminded to the point where they would tolerate the seemingly enormous expense involved. Therefore, service of this type must be applied at a cost which will be tolerated. With this fact in mind the plan suggested in this paper is presented.

## Education, the Need

A prominent railway official once said, "If we are to lower the frightful toll of human lives taken in railroad crossing accidents, we will only accomplish that end by the education of the motoring public." This is a truism which applies to matters of health as well. I have had an opportunity to observe the results of corrective dental clinic work in many parts of the country and, while I do not depreciate the great service these corrective dental clinics have rendered, yet I know that they barely make a scratch on the surface of the need. For example, during the past fifteen or twenty years, a certain large city has been operating eleven full-time dental clinics, trying to serve three hundred and fifty odd thousand school children. Taking 75 per cent as a low estimate of the number of children needing dental service, you can readily see that eleven dental clinics would make very little impression on the group as a whole. To a large degree, these school dental clinics have resolved themselves into emergency stations to relieve acute suffering. Johnny with an aching tooth is eligible for treatment but his little schoolmate, sitting at the desk beside him, cannot receive service though he may, and no doubt does, have the beginnings of tooth trouble. He must wait until his tooth or teeth are almost broken down, if not entirely beyond repair, before the clinic becomes interested in him. Service of this type is exactly like placing an ambulance at the foot of a cliff when we should build a fence around the top. This brings us to the fundamental point to be considered in the planning of any dental service program.

Someone has very appropriately said, "To cure is a voice of the past, to prevent is the divine whisper of the future." And I add to this quotation, "Prevention, not so much by correction as by education."

In the spring of 1929, the Philadelphia Mouth Hygiene Association, Dr. J. A. Detlefsen, executive director, with the cooperation of the dental profession of Philadelphia, conducted a survey of school children in one of the districts of that city. Approximately ten thousand children were examined. The statistics thus gathered were about the same as have been found by surveys in other places. In April, 1930, a motorized dental clinic, containing three operating units, was put into the field to render complete corrective service as a demonstration. This service has been operating among the school children in Philadelphia since that time. The statistics gathered during this demonstration show that about twenty thousand operations could be done in one motorized clinic with three operators during one year of two hundred and ten days. By operations is meant extractions and fillings. Their experience has also shown that the average child served in this clinic requires eight operations. Doctor Detlefsen has estimated that the cost per operation would be about one dollar. In other words, it would cost eight dollars per child to take care of his dental needs. The experience of the Philadelphia Mouth Hygiene Association supports our contention that it is financially out of the question even to dream of a full dental service, and also gives further weight to our opinion that under present conditions, a community dental health program must be educational.

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*Read before the Chicago Dental Society.

## Educational Methods

The following dental preventive educational methods have been and are being applied with definite results in many parts of the country. The basis of all of these methods is the creation of a friendly competition and a desire to obtain something.

The method most generally applied among school children is the use of a Dental Honor Roll. There are between two hundred and two hundred and fifty school districts in Pennsylvania now using this plan. And I am able to state to you with positive knowledge that for the past three years the ratio of dental corrections to the contacts made by the hygienists has been 35 per cent. This, I feel sure, is a larger percentage of corrections than can be shown by any other method. These figures cover a gross contact with between one hundred and fifty and one hundred and seventy-five thousand school children. No child is counted as having received full correction until he has returned certification of that fact signed by the operating dentist. The method used to interest both the individual child and groups of children involves the arousing of friendly prize competition between various schoolrooms and school buildings. One prize used quite generally is free tickets to the local motion picture houses. The local motion picture theatre owners have cooperated one hundred per cent wherever this plan was suggested. Another plan has been to grant a schoolroom a half holiday when it has attained one hundred per cent on the Dental Honor Roll. Still another method is a class picnic when the entire enrollment has received full dental correction. And yet another plan is the holding of a Dental Honor Roll Parade on Child Health Day, no one being allowed to participate who is not on the Dental Honor Roll. I am sure you would be surprised if you had the opportunity of observing the enthusiasm evidenced by children who are party to such competitive activities.

In addition to my official opportunity for such observation, I have had it in a domestic way. My four daughters entered school last September carrying with them the first day of school a Dental Honor Roll Certificate signed by the family dentist. The youngest child was making her initial appearance at school. In the early part of August she, on her own initiative, stimulated no doubt by her older sisters, called up the dentist herself to make appointments which would place her on the Dental Honor Roll her first day of school.

The program we present is one which is almost entirely educational. We shall not enter into a discussion of ways and means to take care of reparative work from a group clinic standpoint. It is entirely feasible and economically practical to accomplish that end by educational measures. In presenting this program, we are not engaging in idealistic dreams.

## The Dental Hygienist

The dental hygienist, even with her limited training, is the best medium yet known through which we can put over the preventive dental health message. In the states where the dental hygienist is legally recognized, we recommend the employment of one dental hygienist to each fifteen hundred school pupils. One dental hygienist can give one prophylaxis per school year to that number of children and, at the same time, appear at frequent intervals before the various classes as a special teacher, giving toothbrush drills, telling dental health stories and presenting anatomical and physiological health lessons concerning teeth and their development, also stimulating the children into friendly competition on the Dental Honor Roll project. The dental hygienist has a psychological advantage over all other adults coming in contact with children in their school life. She appears before them in a dramatic way, because of her white uniform. Her contact with them is particularly valuable because the child having an inherent fear of the dental chair is enlightened by his pleasant experience at her hand.

I have in mind a dental hygienist who has been under my supervision for the past six or seven years. She very effectively impresses upon the children even of kindergarten age, the value of the first permanent molar. I have stood in her operating room and heard her giving even tiny children information regarding this tooth. Subsequently, I have met the parents of these children and have learned that the child has come home after such a lesson and intelligently told its mother all about this important tooth.

Another dental hygienist showed her real initiative by devising a most effective method of getting the mouth health message into the homes. After she had finished giving prophylaxes to the entire enrollment of a room, she then had the classroom teacher, as a lesson in composition, instruct the children to write an invitation to their parents to come to school on a specified afternoon. On the appointed day, the dental hygienist arranged a program participated in by the children themselves, such as group toothbrush drills, dental health songs and recitations. After this program the dental hygienist gave a talk to the mothers on the importance of the care of the children's teeth and verbally described her work to them. This was supplemented by a practical demonstration. The attendance at these programs was more than gratifying and proved that it is possible thus to reach the home, for approximately ninety-five per cent of the homes of the children in each room had sufficient interest to be represented at these meetings.

Another dental hygienist this year has inaugurated a very practical method of emphasizing the dental health message to the children. In cooperation with the superintendent of her district, she prepares monthly graded lessons on the care of the teeth to be presented by the classroom teachers of each grade—the school nurse and the dental hygienist complementing this instruction by frequent visits to the various rooms. All the teachers, both special and regular, continually keep interest and enthusiasm to a high point on the Dental Honor Roll project.

## Comparisons

In a paper presented before the Mouth Hygiene Section of the American Dental Association at Denver, the writer reported the results of a survey made by him to ascertain the effectiveness of the methods which had been employed in Pennsylvania for a ten-year period. The results of this survey were dramatically in support of the plan we are submitting to you today. For example, in two of the communities selected for comparison, Waynesboro and Chambersburg, almost identically the same in environment and population, one hundred children of the sixth grade in each community were diagnostically examined. I will repeat some of the statistics gleaned from that examination.

In Waynesboro, where no dental health program is in operation, out of the hundred, nine mouths were found to be clean. In Chambersburg, where a program of this type has been in operation for over six years, which means that the children of the sixth grade had received instruction on the care of the mouth during the entire period of their school life, eighty mouths were found to be clean and none dirty. In Waynesboro, thirty-eight children had received some dental service. In Chambersburg, eighty-six had been to the dentist. We found in Waynesboro, that eighty-eight of the possible four hundred first molars had been filled. In Waynesboro, we found that fifty-nine out of the possible four hundred first molars had been extracted, while in Chambersburg, with the same ratio, only fourteen had been lost. In Waynesboro, the total number of cavities in the mouths of one hundred children was four hundred and forty-six; in Chambersburg, the same number of children had one hundred and sixty-four cavities. These children were all approximately twelve years of age.

The general practitioner, from his own experience, will agree that this plan of dental health education has had a remarkable result in the Chambersburg schools. For the past four or five years, out of the entire school enrollment of the first eight grades, over twenty-two hundred children, well over ninety per cent of these twenty-two hundred children have presented a Dental Honor Roll Certificate to their classroom teacher, certifying complete dental corrections. This result has been reached without any form of public clinic service, which means that the fifteen dentists of Chambersburg each year have performed dental operations, for which they have been compensated, for over twenty-two hundred children.

I contend that the above suggested idea of using the specially trained person to reach groups of children is practical for any size community. And in the states where the dental hygienist is not legally recognized, she still can be used as a special teacher, not giving practical prophylaxes, however.

A fundamental essential to make this plan function efficiently is the enthusiastic endorsement and cooperation of the local dental profession. The local dentists should qualify themselves in public speaking and seek the opportunity of appearing before service organizations and welfare groups. In communities where the radio is available, the dental organization should attempt regular dental health talks over the air. It should, in cooperation with other child health organizations, hold a Dental Health Week, if possible in conjunction with Child Health Day to avoid duplication of effort. Such a week has been observed throughout Pennsylvania for the past six or eight years; and is now being observed year after year with very little stimulation from the originators of the idea.

I firmly believe that if the dentists of any community should inspire the application of the above plan, the results would exceed their expectations. I well recognize that I have hit only a few of the high points in the community dental health problem but I positively know that this plan will produce more results than any other method yet applied.

At the White House Conference on Child Health and Protection, recently held in Washington, Secretary Wilbur said, "Every child should have regular dental examination and care." Quoting from the editorial columns of the Dental Roster, "It is for the dental profession to decide how, under what conditions, this is to be accomplished, and if the decision is not forthcoming, it will be made for us, and if we are to judge by the experience of other countries, it will not be to the best interests of the dentist. More and more, as time goes on, are we made to realize that we are not just so many individuals practicing a profession of which we are the sole proprietors, but that we are a privileged group catering to the health of the nation and that continuance of this privilege depends upon our ability to render satisfactory service to the public."

I have purposely refrained from discussing the corrective angle of the community dental health problem, for I realize that it would simply raise the argument with which our profession has for the past decade or more been struggling. I firmly believe that the educational plan as presented to you today would be a beginning toward the solution of the corrective service problem.

In closing, I urge the dental profession of this country seriously to consider its obligation to the public and the profession.

# WHEN A CHILD IS TAKEN SICK

## Harold B. Wood, M. D.

*Epidemiologist*

WHEN a child is taken sick consternation reigns. The person in charge of the child is either indifferent and thoughtless, or else is sympathetic and anxious. Careful attention, nevertheless, should at once be given to the little child. Once we ourselves were young and we wanted help when we were ill. We loved those who looked after us and we had confidence in them to do everything they could to help us. When the little child suffers he deserves relief. He relies upon his protectors to protect him. The child who has the proper training will not cry, "Wolf, wolf!" until danger has come or he actually is ill. A child with a pain has something wrong with him. He does not enjoy the pain any more than his parents enjoy suffering. Unless relieved of the condition it may become serious or dangerous. When a little child gets a pain his guardian should not dismiss the thought with the remark that he may get over it after a while.

## In School

A sick child does not belong in school. Sickness in children is determined by their symptoms. Sore throat, coughing, headache, pain and fever are symptoms of something wrong; a rash or breaking out on the skin, vomiting, swollen salivary or lymphatic glands, red throat or spots on the tonsils, and skin peeling from the hands or neck are distinct signs of illness. A sick child in school is either infectious and a menace to others, or else he is in no condition to study or to absorb instruction. He is also especially susceptible to infection and will contract disease readily. A child with a toothache or a headache in school is wasting his time. He belongs, rather, in a dentist's chair or a doctor's office, or at home.

Teachers should know the incipient signs of the contagious diseases and when to look for them. Chickenpox begins as little red spots or blisters on the neck and chest. Measles is evidenced by coughing or sneezing, redness of the eyes, red blotches on the face, neck or chest, or sometimes with nosebleed. Mumps starts with pain and then swelling in front, not below, the canal of the ear. Scarlet-fever makes itself manifest with sore throat and vomiting, with the redness of the skin developing very rapidly. Diphtheria usually commences with fever and a sensation of fullness in the throat, or with swelling; it may or may not cause sore throat and appear like tonsillitis, but any child with either condition must be sent home at once and referred to a physician. Whooping cough begins with a short cough which soon develops into paroxysms of coughing.

The incubation period of a disease is the time required for a disease to develop symptoms. It is the time between exposure and the commencement of illness or symptoms. It is the number of days after a class is exposed that search should be made for secondary cases. With chickenpox it is fourteen days, measles seven to nine days, diphtheria and scarlet fever usually two to five days, and with mumps and whooping cough usually ten to fourteen days. There may, however, be considerable variation from these periods, due to individual susceptibility and to the varying virulence of the bacteria. All the contagious diseases are infectious from the beginning of symptoms, and it therefore is extremely important to detect and control these early cases before they have spread their infection to other children.

The control of contagious disease in school depends entirely upon the discovery and control of the children who are spreading the disease and upon the early exclusion and quarantine of the developing cases. The infection is in the throats of the children, except in chickenpox where it is in the skin. The infection is not in the air nor upon the woodwork of a classroom. Therefore, fumigation of a classroom is useless as it cannot kill the germs which are in the children themselves.

**Whether Child or Grown-Up, See that Pain Leads to the Doctor**

Closing schools in an attempt to control disease scatters the infection. With the children out of school and playing around the town no supervision over them is possible. The teacher does not know who is sick or who is developing the disease and spreading the infection. The schools should be kept open for the well children. The burning of books is another useless expense. Books which have been used by children with diphtheria or scarlet fever should be put on the shelf for a few weeks. Any books used by children with the other common diseases may at once be used by other children.

The teacher who finds or learns of a case of quarantinable disease has an immediate duty which must be completed. The child must at once be sent home and in such manner that it will not come in contact with any other child while going home. The child should be advised to call in the family physician without delay. The teacher must report the case at once to the local health officer and not depend upon the family physician being called and reporting the case.

Sunday-school teachers, kindergarten teachers and all others who have a number of children under their charge, even temporarily, should learn how diseases are handled in school and should adopt such measures. Every one who really has the proper regard for the little children will follow these methods to protect them.

## The Sick Child at Home

The mother who always assumes the attitude that whenever her child gets sick it is only a mild illness of no consequence, may regret her indifference to the child's condition. Many children have had what parents regarded as mild sore throat until finally the doctor was called, but too late to prevent the child dying of diphtheria. In 1930, there were 491 deaths from diphtheria in Pennsylvania. Every one of these fatalities could have been prevented. Whenever a child shows signs of being sick the throat should be looked at frequently every day. Any little white dot or patch may mean diphtheria and signifies that a doctor should be called at once. Children can be protected against diphtheria, no matter how young, by being immunized with toxin-antitoxin or toxoid. In 1930, the Department of Health distributed enough toxin-antitoxin to immunize 218,571 children.

Some mothers still think that children should be permitted to get measles and mumps, chicken pox and whooping cough. They do not realize the dangers of these diseases. They do not know that about one out of every 200 children with measles dies, or that whooping cough kills one child out of every 60 who contract it. They do not understand that mumps will sterilize people, and if children take the disease home from school older persons may get it. They do not appreciate that whooping cough may induce the development of tuberculosis. If mothers knew these facts they would be more willing to try to keep the diseases from spreading, and would report all known cases to the local health officers as they are required by law to do.

The rashes which children develop may be slight in appearance but may not necessarily denote mildness of infection. Cases of scarlet fever may have an exceedingly light rash of little extent, yet develop permanent destruction of the kidneys or end in death. A measles rash may be slight but the child with it is highly infectious and can cause the death of somebody else, or the disease may terminate in destruction of the ear drums with permanent deafness, or kill the child. It does not pay to temporize with these dangerous diseases.

In Pennsylvania during 1930, measles killed 210 children, whooping cough snuffed out 359 more lives, scarlet fever accounted for 175 deaths, and several little babies died from chickenpox or mumps. The indifferent, thoughtless, careless parents will continue to sacrifice more little children to the annual quotas in the future. Some deaths are unavoidable, but the majority can be prevented by paying careful attention to the children, by calling physicians promptly and by using effective measures to prevent the spread of disease.

Mad dogs are greatly dreaded by everybody, and a death from rabies is horrible, but so is one from diphtheria. The public is anxious to do everything to save people from the bites of rabid dogs, but rabies caused the death of only one person in Pennsylvania in 1930. How much more important, therefore, is it to arouse the people to protect their little children from measles, whooping cough and diphtheria!

# HEALTH THE BIGGEST BUSINESS*

**J. Clarence Funk, Sc. D.**
*Director, Bureau Public Health Education*

A MAN of forty-two, who had made a spectacular success in the electrical business, recently came into the office of his general manager and suddenly collapsed. When the doctor arrived he found a young executive who within ten minutes had stepped down from a high business plane to the low level of "a nervous breakdown."

From last reports, six months or a year will be required to put him on his feet again. In the meantime his commercial activities, which depend a great deal upon his personal initiative and judgment, will suffer; and he himself will be the subject of a discipline much to his distaste. Nevertheless, this is the price he must pay for failing to realize that health, and not electrical accessories, is the most important business on earth.

Strangely enough, this progressive manufacturer was not unmindful of his workers' welfare. Rest rooms, gymnasium and ball ground had all been supplied at his suggestion. He believed that such things made for efficiency, and he was quite right about it. As for himself, however, he worked thirteen hours out of the twenty-four, habitually ate more than was good for him, smoked decidedly too much, invariably slept as little as possible, and exercised not at all. Combined, these personal derelictions eventually threw him down on his back.

Like many another busy man he had failed to appreciate that Nature, long suffering and amazingly flexible as she is, also has her limits; and that when she says stop, she most emphatically means it—a successful business man to the contrary notwithstanding.

Judging from unmistakable evidence, hundreds of prosperous men somehow imagine that they enjoy a privileged immunity against the infractions of fundamental living habits. And this unjustifiable conclusion, perhaps more than any other one factor, is responsible for the premature breaking of so many of them.

For instance, not long ago a prominent wholesaler, known in his neighborhood for his remarkable memory, died. At the time of his death he was only fifty-one years old. Yet for the fifteen years prior to his decease he had so forgotten the sensible method of living as to eat food sufficient for three average men, to supplant his legs with a motor car, and to average only six hours' sleep each night. It followed as a natural result that he forgot to live.

On the other hand, it is quite true that many men of affairs conscientiously display a positive interest in their physical welfare. They logically realize that with shattered nerves or an impaired physical economy they would be compelled immediately to relinquish their commanding positions. Consequently, while they make a notable success of business they also make an outstanding one of living. Even so, it seems that there should be many more thousands of like mind than now exist.

Undoubtedly, the majority of this country's business men know that their success has not been based upon hard work alone. They well realize that vitality of mind and body has also been responsible for it.

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However, what so many of them apparently forget is that vitality is not a perpetual motion affair.

As an example of this point, one finds instances of bed manufacturers who use beds as little as anybody; producers of health foods who regularly eat anything and everything until their capacity fails; jobbers of gymnasium equipment whose personal experience is limited to an infrequent stroll over the golf course, and resort hotel men whose fresh air is obtained only when they retire to their rooms at night. And so the story goes.

**Business Men as Well as Others Should Obey Fatigue's Commands**

Just the other week a prominent midwestern broker was the recipient of large quantities of flowers. But he was at a decided disadvantage regarding them. Just a year ago, he was vigorously urged by one of his friends to submit to a physical examination merely as a matter of routine. "Nothing wrong with me. Never get sick. Not borrowing trouble. And what is more, have no time to bother," he boastfully replied. Nevertheless, this keen man unfortunately erred in every particular. Something *was* wrong with him at the time. He *was* actually sick. Trouble had already taken possession of him. And not having time to bother, he now has neither time nor bother. According to the doctor's report, it was a little matter of the heart. Forewarned by the examination, he conceivably could be alive today. Brains and time for business, but none for health!

Admittedly, heart disease, cancer and diabetes have no proper place in the business man's program. However these enemies to health and life have in the past repeatedly demonstrated their intense affection for members of this class. As a matter of statistical fact, a staggering number of business men have been knocked down and forever out by these afflictions which, by the way, are increasing.

"This situation could literally be changed over night," recently remarked a medical director of a large insurance company. "If business men would only use the simple expedient of the annual physical examination, many deaths now occurring could be definitely deferred. Early diagnosis is the secret in combating many conditions that insidiously gain headway and kill." Which seems plainly to indicate that the periodic health examination is a mighty good habit to form from a business point of view. You simply cheat yourself when you put off the time when you seek medical aid.

Last week a prominent merchant was observed eating his luncheon at his club. "That misguided man," remarked a physician at the next table, "is unconsciously engaged in the grave-digging trade. He thinks dry goods are his main concern. But he's wrong. It's food. And he is gradually being killed by it."

If a recent statistical study may be relied upon, nearly two-thirds of the more prosperous men in the United States today are too fond of food. And this, despite the established fact that overstock in provender is just as dangerous a condition as is overstock in business.

And when it comes to sleep—well, a few outstanding leaders have managed to thrive upon a small amount of it. But this is no good reason for the average business man to put himself in their class. Indeed, it is highly, and sometimes fatally presumptuous to do so. It must be remembered that sleep was invented long before dollars; it demands and always will demand precedence over them.

Said the head of a state health department when this subject was lately under discussion, "The individual who fails to obtain adequate rest each night is overestimating his capacities and is headed for physical bankruptcy." Rather a poor business proposition!

A merchant who in his early days was accustomed to walk to business now has altogether ceased this practice. In so doing, he is denying his body of one of its most important requirements. He forgets that muscles were made for daily use and, being consistently unused, a price has to be paid for this neglect. He is paying it today.

What should vitally interest the business man is the high cost of sickness—the payment that disease exacts from him in lessened efficiency, loss of earning power and shortened life.

"The business man who refuses to exercise the body moderately is turning his back upon one of the most delightful methods of attaining and maintaining physical well being," recently remarked a surgeon of a large industrial plant at a convention of steel executives. And that surgeon knew what he was talking about.

Commerce is indeed a marvelous adventure. Business, large or small, is a fascinating game. But health tops the list in importance. Despite the great mergers and international financing so commonplace today, the gentle art of proper, healthy, lengthy and joyful living remains, as it always has been, absolutely the biggest business on earth. Therefore, it would appear to be good business, no matter how busy, always to remember this fundamental fact.

# VACATION WITHOUT THE ACHE

### A. J. Bohl

*Supervisor of Health Officers*

WELL, it won't be long now! Here we are "knee deep in June" and vacation time right at hand. We have to check up on the bank account and the wardrobe, and figure out where the two of them will take us. We have to get ready for that annual vacation. And I mean ready.

You know, a vacation can be a wonderful thing. It's really marvelous how a few short weeks lived among different people and in a new scene can so rejuvenate a tired, restless person. And on the other hand, it's remarkable how much harm a vacation can do to the person and pocketbook of the vacationeer.

There is no use saying anything about the pocketbook here. Everybody knows just how hard a wallop it will stand, and that's that. But the person—well, that's another story. So, where will we take that person for his vacation? How about a seaside resort, down along the Atlantic, where hundreds of thousands of people go for their summer pleasure? There is all the gorgeous ocean scenery, the surf bathing, the sea food, and the superlative hotels and amusements; and they form an ensemble that is mighty attractive. But what that surf bathing can do to you! The combination of salt water and golden sunshine on your untanned skin can put you to bed for weeks. And you just can't go to bed early every night, what with the board-walk, and the diversions, and the pretty girls. But the loss of sleep and rest, plus the intake of a lot of strange food and drinks, often means that the amusement seeker goes down for the count.

It can be just as bad at a mountain resort. Beside the social events, you get tired out climbing around a lot of rocks, and perhaps you fall off of one of them and break an arm or sprain an ankle. If you go to the country you fall out of a tree, or get kicked by a cow. And if you just take a motor trip you have an accident, cracking up the car and yourself to boot. The whole thing is just one round of trouble. It's tough!

Of course, this is looking at the thing through dark glasses. These things don't have to happen. And to the fellow who uses his head for its designed purpose, they don't happen. The wise person doesn't try to swim the Atlantic when he knows that a hundred yards is all he can do. The smart lad doesn't show off before a couple of girls by trying to climb a mess of rocks that would stump an Alpine Club member. So these boys have a good time; moreover, they don't try to eat everything on the table, they lay off dubious cocktails, and go back home refreshed and rejuvenated by their vacation.

You know, a vacation simply means a change of scene. It doesn't mean that you have to take chances with your life and your digestive organs. If you like to play golf you can have your vacation right at home, playing a couple rounds a day in perfect safety. You can go camping, if you know a good spot, and have a grand time. If you like to dance and socialize, you can do that, somewhere, and have the time of your life. You can do anything you want, and call it a vacation, and get away with it. If you've had a lot of fun, that is all that's necessary.

But there are so many things that may do you a lot of damage. Lots of fellows save their vacation until hunting season opens; and if you read the papers you know how many men are killed and wounded by fire-arms each autumn. Guns are dangerous in inexperienced hands. Water sports are dangerous, too. And there is a whole raft of minor casualties that can happen. There is poison ivy, if you go camping. Learn to recognize it, and steer clear of it. And if you're going camping, take along someone who can cook. You just can't get along without good grub.

Woo Health on that Vacation of Yours

Again, there's the small matter of eating. Eating too much when the food's different and delicious, to the resulting ruin of your digestive apparatus. There's keeping late hours, losing your rest, and drawing on your reserve. And there's playing too hard, no matter what the game may be.

This is the real ache in vacation, doing things that are unwise, whether it's eating, drinking or playing. Just remember that your vacation should mean coming back to the job feeling like a giant, not crawling back on your hands and knees so played out that you need a week in bed. That's not a vacation. That's a punishment. So play fair with yourself, be sensible on your two weeks' sojourn. And come back without the ache. Value received cannot be obtained otherwise.

## "DID IT EVER OCCUR TO YOU THAT—"

THE loaded gun you keep to protect yourself from burglars is more apt to endanger your life than to save it. Little children frequently find these weapons and kill their parents, or each other.

The coal gas coming from a widely opened stove door is deadly, and that if the door is closed or nearly closed the gases go up the chimney. Therefore, the draft should be kept on for awhile after fresh coal is added.

Running the automobile engine only a few minutes in a closed garage will generate enough carbon monoxide to kill you. Open the door first before starting the engine.

To wait until your child becomes of school age before having him vaccinated may make him a smallpox victim and he may die from it. No child is too young to be vaccinated.

To let little children play with scissors or knives invites danger. Many eyes are lost by such play. Your child cannot see through a glass eye.

Any case of contagious disease which is not quarantined may spread sickness and perhaps death. If a doctor does not report the case to the health officer, somebody else should. Certainly the school teachers and the parents should report all cases of which they know.

You cannot see germs in water or upon foods. So select water, milk and foods according to the safety of their sources or the methods of their being handled and not according to their appearance.

The storekeepers who expose their bakery goods upon open counters, as well as their candy and foods which are eaten uncooked, do not think that these things may collect and spread disease germs, or they don't care.

Many lives are being saved because people have listened to their doctors or have accepted advice from public health officials.

Chilblains and frozen skin result from too little clothing. Women have had their legs amputated because of gangrene resulting from wearing thin silk stockings in very cold weather.

It is no disgrace for your neighbors to know that your child has scarlet fever or measles, but it is a disgrace for them to know that you carelessly spread contagious disease. A placard on your house shows what you think about careless handling of diseases.

Impetigo, the crusty skin disease frequently seen on the faces of school children, is contagious and will be spread by persons using the same towel, napkin or handkerchief.

Carelessness in the so-called little matters of health kill more people than epidemics.

H. B. W.

## DEPARTMENT NEWS

MATERNAL MORTALITY—One of the most distressing features connected with race propagation is the avoidable toll of mother-deaths. The United States as a whole shows a much higher death rate in conditions attendant upon child birth than do the European countries. And Pennsylvania is responsible for its share in this deplorable situation.

While the problem is a public health one, its solution devolves entirely upon educating prospective parents so that individual interest in pre-natal and post-natal care may be properly exercised. In order to focus the attention of the public upon this exceedingly vital subject, the Department in cooperation with the Maternity Center, of New York City, prepared a program, the celebration of which centered around Mother's Day. The publicity material was most interestingly and comprehensively handled throughout the Commonwealth by hundreds of newspaper editors, to whom much credit must be given for the success of the campaign.

The fact to be remembered, however, is that all prospective mothers should place themselves under the care of a competent physician immediately upon knowledge of the condition. It is not too much to say that thousands of lives being sacrificed yearly could be saved were this advice to be followed. It seems a shame that carelessness deprives womanhood of the scientific measures for the conservation and preservation of life which have been so splendidly developed. Parents-to-be, take notice!

FAMILY INTERVIEW SURVEY—The results of the family interview survey of the use of preventive medical service for children under six years of age, which survey was made in 146 cities in the United States, has been published by the Committee on Medical Care for Children of the White House Conference on Child Health and Protection. The survey involved 91,416 families and 140,207 children.

The percentage of pre-school children given health attention among 36 cities of 225,000 population and over, places Kansas City, Mo., and Providence, R. I., at the top of the list so far as health examinations are concerned. Philadelphia, under this classification, ranked 28th. With respect to dental examinations, Kansas City again was first, with San Francisco and Minneapolis second, Philadelphia occupying 30th place. Under the vaccination heading, New York took first honors, Providence, R. I., second, and San Francisco third, Philadelphia being well up on the list with fifth place. Immunization placed Rochester, N. Y., No. 1; Detroit, Mich., No. 2; Memphis, Tennessee, No. 3; New York City, No. 4; Philadelphia being also near the top with sixth place.

In cities of 105,000 to 224,000 population, under the heading of health examinations, Fall River, Mass., obtained first place; Reading, Pa., and Springfield, Mass., tying for second place, with Scranton 23rd in the list. Dental examinations gave first place to Salt Lake City, second place to Long Beach, Calif., 18th place to Erie, and 25th place to Scranton. Under vaccination, Yonkers, N. Y., was first; New Haven, Conn., second; Erie, 29th and Scranton 9th. Under the immunization heading, Syracuse, N. Y., was first; Yonkers, N. Y., second; Erie, 31st and Scranton 7th.

Percentages among 37 cities of 65,000 to 104,000 population, placed Berkeley, Calif., in No. 1 place under health examinations, with Allentown, 24th; Altoona, 34th; Harrisburg, 16th; Johnstown, 26th and Wilkes-Barre, 33rd.

Dental examinations found Newton, Mass., topping the list, with Allentown, 32nd; Altoona, Pa., 29th; Harrisburg, 20th; Wilkes-Barre, 24th. In vaccination, Newton, Mass., again attained first place, Allentown being 36th on the list, Altoona 36th on the list, and Harrisburg 15th. Immunization, Niagara Falls took first place; Allentown, 20th; Altoona, 35th; Harrisburg, 17th; and Wilkes-Barre, 14th.

Commenting on this report, the Secretary of Health said, "While the practical difficulties of administering the preventive measures in big cities as outlined by the above figures are well appreciated, the fact apparently remains that the large centers of population in Pennsylvania and other states can with profit place additional emphasis upon this type of work.

"The rural communities in Pennsylvania, presenting as they do an easier problem, undoubtedly show a higher percentage of efficiency along the lines of health and dental examination, vaccination and immunization than do the big cities. However, the fact that the work has progressed in populous centers as far as it has, is a most satisfactory sign of the times."

Prevention is the keynote of not only public but personal health activities. The old song of "get well" has now been changed to "keep well." What are *you* doing to maintain vim, vigor and vitality in order that you may enjoy maximum happiness and life? Unconcern in this matter fills many premature graves.

MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION—The sixtieth annual meeting of the American Public Health Association will be held September 14–17, in Montreal, Quebec, with the Windsor Hotel as headquarters. The Association has not held a meeting in Canada since 1908. The program is being planned with the progress and needs of both countries in mind.

Any physician or public health worker who has been fortunate enough to attend the meetings of the American Public Health Association cannot but help realize the amount of information and inspiration which is to be obtained from these conventions. With special railroad rates available, together with the attractiveness of the city in which the meetings are to be held, health workers who possibly can see their way clear to do so should make a special effort to be among those present.

In addition to the Association meetings, the following organizations will also hold sessions in Montreal during the period of the convention: American Association of School Physicians, Conference of State Sanitary Engineers, International Society of Medical Officers of Health and the International Association of Dairy and Milk Inspectors.

HEALTH OFFICER REQUIREMENTS—Dr. J. Bruce McCreary, deputy secretary of health, recently announced that the number of qualified health officers was constantly growing. He advised the Secretary of Health that the Department is enforcing the amended board of health law which requires boroughs and first-class townships to employ experienced and trained health officers, as rapidly as circumstances permit.

The approval of the Secretary of Health is required, upon the submission of qualifications by the borough health department, before the health officer can assume his duties. This is a stipulation written into the statute.

For the benefit of borough and first-class township health departments, Doctor McCreary also announced that following a practice of several years standing, the Field Medical Service School of the U. S. Army at Carlisle, Pa., has again made it possible for prospective health officers or men who are now engaged in that type of activity, to undergo a course of training in sanitation and sanitary practices under army supervision.

Borough officials are therefore urged to make arrangements with the Department for training of this character in order that men engaged in health-officer work in their respective jurisdictions may have unquestioned legal status and authority.

Doctor McCreary stated that there are approximately 900 boroughs and first-class townships in the Commonwealth and that the number of approved health officers is comparatively small.

"While there is no attempt being made by the Department," said Doctor McCreary, "to impose harsh or impossible restrictions upon the health-officer group, especially in view of the fact that many of these representatives have been actually qualified by reason of their past experience, the Department nevertheless is insisting that all new borough health officers appointed by local boards of health submit qualifications to the Secretary of Health before state approval is given. Undoubtedly there is a fairly large number of health officers who should avail themselves of the course offered at Carlisle."

How about it, health officers?

THE RED CROSS AND THE DROUGHT—Nearly 2,500,000 persons in 22 states came under the care of the American Red Cross as a result of drought. Relief operations were the most extensive in 50 years of aiding victims in more than 1,000 disasters.

Relief assumed various forms: Food and feed, clothing, seed for pastures and gardens, medical supplies, hot lunches in schools.

Only 340 professional workers were employed on the huge task—the rest were volunteers. Local Chapters taxed their resources to the utmost before asking for funds from the National Headquarters.

As early as last September, the Red Cross began distributing to more than 58,000 families seed for pastures and to more than 27,000 families seed for kitchen gardens, in anticipation of the emergency. The expenditure for this purpose amounted to $326,800. Green vegetables were thus made available up to the first of January, and stock was kept alive for several months.

A second garden program got under way in February, and 537,000 packages of seed were distributed. Quarter-acre plots were planted to beans, beets, cabbage, carrots, collard, sweet corn, kale, lettuce, mustard, okra, onions, peas, spinach, squash, tomatoes and turnips.

Feeding, provided balanced and adequate rations. Red Cross nutritionists, together with Department of Agriculture experts, made it effective in preventing malnutrition and setting up a resistance to disease. Hot lunches were served in many schools. One day the children were given vegetable soup and bread, another day a thick beef stew with vegetables, a third day milk or cocoa with sandwiches.

In some instances, instead of serving lunches in the schools, children of school age were provided for in additional rations to families. Food orders included such lunch materials as peanut butter, raisins, prunes and tomatoes.

County health officers and private physicians commended the adequacy of rations procured on orders issued by Red Cross Chapters, which were filled at local stores. Besides the usual staples, such as corn meal, flour, lard, meat, beans and potatoes, such items as canned salmon, cabbage, tomatoes, vegetables and milk were provided, each order being adapted to the special needs of the family for whom it was issued. Where pellagra threatened, yeast and other preventives were made available.

**Typical Mountaineer Family Fed by the Red Cross. These People Never Sought nor Received Such Help Before**

More than 500 carloads of foodstuffs were contributed. These were hauled free by the railroads, as their contribution to the cause. Shipments ranged from live poultry to fish, from grain to grapefruit, and included carloads of flour, eggs, beans, vegetables, onions, rice, and corn.

States involved were: Alabama, Arkansas, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Montana, North Carolina, New Mexico, North Dakota, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Virginia, and West Virginia.

BIRTH CERTIFICATES—The director of the bureau of vital statistics, Dr. Emlyn Jones, recently announced that birth certificates for all children born prior to any ninety-day period are indexed and filed. He suggests to parents that if certificates have not been received from the Department for any child born prior to three months ago, formal inquiry should be made direct to his office to locate the error.

**The Red Cross Instituted a Hot Lunch Program in Almost 3,000 Rural Schools in the Drought Stricken States**

"With 150,000 or more births annually in Pennsylvania, there is bound to be a number which through carelessness are not properly recorded in the Department's files," said Doctor Jones. "The value of these records can be materially enhanced if parents who have not received a certificate of birth of children born three months ago, or before that time, will get in touch with their family physician or the Department to locate the deficiency. It might be added that the records are frequently imperfect because of the postponement in naming the baby. Wherever practicable, the infant should be named within a week after its arrival, thus making its record complete for future reference."

The value of a birth record is well known, being used for passports, enlistments, legal evidence, employment and many other purposes where the facts of birth and residence are essential. If you are one of the parents whose child was born prior to the immediate ninety-day period and have not as yet received a copy of its birth certificate, check back on the matter at once.

THE CORRECTION OF DEFECTS—John G. Ziegler, chief of the school division, in a report recently submitted to the Secretary of Health, includes a tabulation of the treatment secured by school children during 1930 throughout the several counties. This treatment was consequent upon the reports of the medical inspectors in the fourth-class school districts. The counties and percentages follow:

Adams, 37.0; Allegheny, 32.3; Armstrong, 24.0; Beaver, 28.1; Bedford, 30.4; Berks, 39.2; Blair, 41.4; Bradford, 49.; Bucks, 33.3; Butler, 28.4; Cambria, 32.7; Cameron, 33.8; Carbon, 35.0; Centre, 47.5; Chester, 28.4; Clarion, 30.2; Clearfield, 34.1; Clinton, 29.5; Columbia, 23.6; Crawford, 31.2; Cumberland, 33.6; Dauphin, 35.3; Delaware, 31.9; Elk, 49.2; Erie, 34.4; Fayette, 27.8; Forest, 43.5; Franklin, 22.0; Fulton, 30.7; Greene, 26.9; Huntingdon, 29.9; Indiana, 22.5; Jefferson, 30.9; Juniata, 24.1; Lackawanna, 31.2; Lancaster, 30.8; Lawrence, 18.0; Lebanon, 33.2; Lehigh, 22.5; Luzerne, 25.7; Lycoming, 25.6; McKean, 35.5; Mercer, 22.2; Mifflin, 28.3; Monroe, 26.5; Montgomery, 37.0; Montour, 17.8; Northampton, 35.5; Northumberland, 29.9; Perry, 27.3; Pike, 43.0; Potter, 23.6; Schuylkill, 30.4; Snyder, 31.0; Somerset, 25.1; Sullivan, 27.9; Susquehanna, 32.1; Tioga, 34.8; Union, 35.9; Venango, 29.7; Warren, 30.4; Washington, 30.7; Wayne, 34.0; Westmoreland, 28.3; Wyoming, 23.0; York, 32.4. The general average for the Commonwealth in fourth-class districts was 31.1 per cent.

It thus appears that the Department is doing a magnificent piece of repair work. It would be better however if the youngsters were in prime condition before they entered school and then were kept that way insofar as is humanly possible. The Department for a number of years has been making a major effort along these lines as well. Are you, as parents, doing your part?

MENINGITIS—According to Doctor J. Moore Campbell, chief of the bureau of communciable diseases, epidemic meningitis for the past three years has been sweeping over the United States in one of its periodic waves and will not decrease much this year.

Said Doctor Campbell, "Pennsylvania during the past three years had 1,302 reported cases of meningitis with 611 deaths. This record nearly equals the excessive outbreak of 1917–18, when there were 1,391 cases and 800 deaths in two years. The former outbreak was not due to the War as many persons supposed. No more adults proportionately had the disease at that time than during any other year. Approximately 25 per cent of the cases occur in persons over twenty years of age which to many people will be surprising. Over half the cases occur in children and one-fifth in infants.

"This disease comes in waves of twelve years apart. It can be therefore reasonably expected that 1931 will be a heavy year as indicated by statistical reasoning and by the reports which are now being received in the Department. Every effort is being made to increase the efficiency in reporting. It is estimated that at the present time about three-fourths of the cases reach the Department in the form of reports. The law expressly requires that all cases of meningitis be reported and quarantined.

"Speaking in terms of years, the several forms of meningitis are markedly reducing, there being now less than half as many cases as there were twenty years ago. Consequently the epidemic phases show a proportionate reduction, but the periodicity waves still continue.

The serum treatment has reduced the fatality of meningitis from about 90 to 30 per cent, but the serum must be administered early and daily until the disease is proved not to be infectious by examination of the spinal fluid.

"Preventive measures are difficult to outline. The maintenance of physical well-being by the adoption of proper living and hygienic rules being the fundamental bulwark. The main factor in cure is early discovery. Especially in children suffering from apparent colds and fever, no chances should be taken. The patient should be immediately put to bed and a physician called. Both from the standpoint of cure and end results parents should take no chances on the welfare of their child where suspicious symptoms arise. Delayed treatment, more than any other factor, is responsible for permanent paralysis and deaths."

Doctor Campbell's advice is both timely and valuable. Heed it!

DROUGHT RELIEF—A year has elapsed since the first indications of drought appeared in Pennsylvania—the longest unbroken stretch of a deficiency in rainfall to be recorded by the weather bureau. And while Pennsylvania was by no means the hardest hit, certain areas were markedly affected and relief measures until a few weeks ago have been consistently necessary.

The federal government allocated to the Department $30,000 for the period covering March 1st to June 30th for relief measures.

Discussing this matter the Secretary of Health recently remarked, "As part of the general deficiency bill the last Congress appropriated $2,000,000 for the assistance of official state and county health organizations to cover the emergency arising from drought conditions. This fund is administered through the Public Health Service.

"Surgeon General Cumming, of the United States Public Health Service, called a meeting of the twenty-two states involved at Memphis, Tennessee, on February the 16th and 17th, at which time he explained the arrangements for the allocation of this appropriation to the various health officials representing these respective jurisdictions.

"Following this meeting, and with the approval of Governor Pinchot, a formal application was made by Pennsylvania to the federal authorities for assistance in preventive work in those counties in Pennsylvania which were affected by the drought. A budget was submitted and the approval of its items was recently received from Washington.

"The area affected by the drought," continued Doctor Appel, "has been divided into five districts. Mobile units have been placed in each district consisting of a traveling laboratory and proper personnel including chemists, bacteriologists, nurses, health officers, etc.

"To begin the work, No. 1 unit has been placed in Gettysburg to cover Franklin, York, Adams and Cumberland counties; No. 2 is located in Uniontown to serve Fayette, Washington and Westmoreland counties; No. 3 has been placed in Punxsutawney to cover Jefferson, Clearfield and Indiana counties; No. 4 is in Lancaster to serve Lancaster, Lebanon, Berks and Dauphin counties; No. 5 is in Pottsville to cover Schuylkill, Lehigh and Carbon counties.

"The problem affecting Pennsylvania due to the drought is the prevention of typhoid fever. During the four fall months, according to our records, there was an increase of more than 400 cases of rural typhoid directly traceable to drought conditions. The work of the mobile units will be practically entirely devoted to existing typhoid and the prevention of further cases by protecting the public and private water supplies in the respective areas.

"Under the arrangements with the government, the personnel, salaries and fees, will be paid directly by federal funds. The maintenance and expenses will be drawn from the funds allocated to the Department of Health.

"Pennsylvania's share, as shown by the budget covering the period of March 1st to June 30th, involves a federal appropriation of $30,000. Subsequent budgets are to be submitted at quarterly intervals so long as the conditions exist, funds having been made available for a period of two years.

**o, This is not Milk. It's Water which was Daily Hauled to 1,200 Families in and around a Drought-Stricken Borough. Conditions Similar to This One Persisted in Pennsylvania Until Late Spring**

"Comparatively speaking, Pennsylvania was not as hard hit by the drought conditions as many other localities. However, several sections of the Commonwealth were noticeably influenced and until a month ago suffered from a lack of precipitation.

"The Health Department's organization was in a position to step into the breach very early in the drought, thus making it possible to erect scientific barriers which otherwise would have been omitted. The work that the Department has been doing since last spring along typhoid preventive lines has been notable, and the fact that the number of cases of typhoid fever was kept within the present limits was entirely due to the efficient work accomplished by Department personnel working in hearty cooperation with health officers in many localities."

"One never misses the water 'til the well runs dry," has been painfully proven. That the typhoid fever incidence was held in check so efficiently is but another eloquent instance of the value and power of health administration policies.

"COPY"—A pat on the back, and a well deserved one, appears in the form of the following self-explanatory copy from a Scranton paper:

> Miss Alice M. O'Halloran, who was the Florence Nightingale of the typhoid epidemic in Scranton during the administration of Mayor J. Ben Dimmick, has just made an interesting report to the health department at Harrisburg. To the secretary, Dr. Theodore B. Appel, she has shown that in the past year 145 nurses connected with the department visited a total of 12,277 schools in the fourth-class districts. This work was conducted primarily for the purpose of assisting medical inspectors in the original inspection work as well as to secure data for follow-up activities in the homes of children needing corrections. Individual cases followed up and corrected through the nurses' efforts involved 141,141 children. This figure is exclusive of the follow-up work done among pre-school children which reached a total of 49,463. School nursing, which was unheard of a few years ago, is one of the most important features of the modern institutions of learning. When in Scranton, by the way, Miss O'Halloran demonstrated her ability not only as a nurse, but an organizer. Her career in the State Department of Health has been watched with interest by the many friends that she made while in Scranton directing the nurses that were engaged in attending the typhoid patients.

A Katherine Mayo could write a romantically interesting book on the work of the State Health Department's nursing force. Touching as it does, all phases of public health activities, it is one of the most efficient of the Department's weapons. Hats off to you, state nurses!

A NEW LOW—Diphtheria set a new low record in 1930. The bureau of vital statistics announces that the case and death rates of this disease for last year have never been lower in the history of the Commonwealth. There were 6,183 cases reported, equivalent to a rate of 64.0 per 100,000 population. While the mortality figures for the year are not complete, it is certain that the diphtheria death rate will be considerably lower than that of preceding periods.

Of the 6,183 cases recorded, 47 per cent were male and 53 per cent female, 97 per cent white and 3 per cent colored. There were 1,761 cases of diphtheria among children under 5 years of age, 2,383 in the age groups 5 to 9 years, 820 between 10 and 14 years, and 1,219 over the age of 15. In the older age periods, 5 cases were reported of persons between 65 and 74 years and 3 cases over 75 years of age. In the following localities there was not a case of diphtheria registered in the entire year: Cameron, Forest and Sullivan Counties and Chambersburg.

Three cheers for toxin-antitoxin!

ELECTION—The Secretary of Health, at the recent meeting of the Board of Commissioners of Health of the Ohio River basin, held in Memphis, Tennessee, was elected chairman of the board.

This board, together with the chief engineers of the respective states interested, executes the interstate stream conservation agreement which was drawn in 1924. States signatory to this agreement in addition to Pennsylvania are Ohio, West Virginia, Kentucky, New York, Maryland, Illinois, Indiana, Tennessee, North Carolina and Virginia.

The purpose of the agreement is the protection of the water supplies derived from interstate streams.

UNUSUAL DISEASES—A report of the incidence of unusual types of diseases occurring in Pennsylvania during 1930 was recently submitted to the Secretary of Health, by Dr. J. Moore Campbell, chief of the bureau of communicable diseases. The list includes 35 cases of undulant fever, 90 cases of trichinosis from eating raw pork, 8 tularemia infections caused by the careless dressing of diseased rabbits, and 3 cases of psittacosis, or parrot disease, which is caused by contagion spread through sub-tropical pets such as infected parrots and parrakeets. Malaria had a record of 9 cases and human rabies, one. A significant fact was 41 cases of smallpox occurring in unvaccinated persons, all of the cases having been imported from other jurisdictions than Pennsylvania.

MILK PERMITS—Ralph G. Irwin, chief of the bureau of milk control, has reported that 5,000 applications for permits for the sale of milk have just been forwarded to the dealers. These applications are for permits for the distribution and sale of milk from September 1, 1931, to September 1, 1932.

Investigations on these applications are made by the district state representatives. If the plant and equipment are found to be up to the standards required by the Law of 1929, recommendations are made and permits issued by the Secretary of Health.

MAY DAY HEALTH WEEK—The May Day Health Week campaign this year was an outstanding success. Under the guidance of Dr. Mary Riggs Noble, chief of the pre-school section, who acted as state chairman, many thousands of little people were examined throughout Pennsylvania and are now having their impairments corrected. A great impetus to the work this year was occasioned by the White House Conference on Child Health Conservation which was sponsored and directed by President Hoover and Dr. Ray Lyman Wilbur, U. S. Secretary of the Interior.

FINE WORK—While the new Hospital for Crippled Children at Elizabethtown has been in operation less than a year, an average of 85 per cent corrections has been accomplished. As is known, this institution was established for the purpose of making corrections of deformities occasioned by bone tuberculosis or congenital defects in children from one to sixteen years of age. More than 200 little people have already been guests in the hospital.

Commenting on this matter, the Secretary of Health said, "While the high average of corrections has been exceedingly satisfactory, it is expected that the percentage of cures and adjustments will increase in view of the fact that numerous incurable deformities unfortunately gained admission to the hospital. Such children are now being carefully weeded out at the various admission centers."

SEWAGE PROJECT—The Secretary of Health has been advised that a $5,000,000 sewage project has been developed for 34 contiguous municipalities located in the eastern half of Delaware County.

In 1928, a board composed of F. H. Snow, chief engineer of the Public Service Commission; W. L. Stevenson, chief engineer of the Pennsylvania State Department of Health; and Albert F. Damon, Jr., consulting engineer, was appointed for the purpose of studying the sewage problem connected with a cooperative sewage disposal plan for that district. This board reported its findings which includes a complete system of intercepting sewers along the ten tributaries of the Delaware river draining the eastern half of Delaware county and the erection of five sewage treatment works. This project is the largest cooperative plan of its kind ever undertaken in Pennsylvania.

**One of the Wards in the Crippled Children's Hospital**

TOO BAD—According to a report recently forwarded to the Secretary of Health by Dr. E. S. Everhart, chief of the venereal disease section, the incidence of venereal disease is spreading among children of high school age.

"While there is no desire to indict high school pupils generally, the unfortunate fact remains that the incidence of venereal disease among students in the higher grades is on the increase," said Doctor Everhart. "Every effort is being made by the Department of Health through lectures on social hygiene to impress upon high school student bodies the dangers consequent upon lax morals. However, knowledge of consequences apparently is not sufficient to act as a deterrent, especially in face of the uncontrolled actions and activities to which modern youth in these days of absolute freedom are subjected. The problem is a sociological one which must to a large extent depend upon home control and personal education for an ultimate satisfactory solution.

"Over against the non-professional activities in which a minimum of our youth engage are the numerous resorts located especially in the larger cities which represent not only commercialized vice in its worst form but the meeting-place of racketeers, beer runners and the underworld generally. Working in close cooperation with the State Police force and local authorities, sustained efforts continue to be made with a view to abolishing this particular and most dangerous type of disease infection. Our records covering the last thirty days show a large number of arrests and the sequestration of professional disease spreaders in quarantine hospitals."

Home influence is the best preventive for this sort of thing.

POST-GRADUATE COURSE—The 8th Annual Post-Graduate Course, Oto-rhino-laryngo-logical Department, University of Bordeaux, France, commences July 27, 1931.

A five weeks intensive course for American physicians is given in English under the personal guidance of Professor Georges Portmann.

Plastic, sinus, trans-maxillary, mastoid, neck and goitre surgery; as well as bronchoscopy, laryngoscopy, oesophascopy and tongue surgery are the subjects studied.

The study is limited to twelve physicians who act as assistants to Professor Portmann in this interesting operative course.

For particulars write to Dr. Leon Felderman, 413 Mitten Building, Philadelphia, Pa.

PENNSYLVANIA PUBLIC HEALTH ASSOCIATION—The annual meeting of this Association will be held in Harrisburg with headquarters at the Penn-Harris Hotel from June 18th to 19th. A most interesting program has been arranged including an address by Surgeon General Hugh S. Cumming, who is also president of the American Public Health Association. More than 200 physicians, health and social workers will be in attendance. Members of the program committee include Dr. Edgar S. Everhart, chief of the venereal disease section; J. Clarence Funk, chief of the bureau of public health education and Dr. H. C. Lawton, 2300 Market Street, Camp Hill. Officers of the Association are president, Dr. J. M. J. Raunick, Harrisburg; first vice-president, Dr. Charles B. Maits, Pittsburgh; second vice-president, Thomas W. Henderson, Washington, Pa.; secretary, Dr. John R. Conover, Pittsburgh.

BROADCASTING—Favorable and flattering reports continue to be received by the Department on the weekly talks which for the past several months have been broadcast over WBAK, the State Police broadcasting station at Harrisburg. Recent speakers included Dr. J. Bruce McCreary, deputy secretary of health; A. J. Bohl, supervisor of health officers; Dr. Emlyn Jones, director of the bureau of vital statistics, and J. Clarence Funk, director of the bureau of public health education. In view of the response to this type of health education, this feature will be continued until July 1st.

SUPPLY DIVISION—During the past thirty days, 12,565 packages of diphtheria antitoxin were distributed throughout the Commonwealth by supply officer Roy G. Miller. In addition, 796 anti-tetanus treatments, 485 smallpox vaccines, 214 Schick tests, 4,848 capsules of silver nitrate and sufficient toxin-antitoxin permanently to immunize 16,426 children were sent out from his office. Rather a good month's work!

MORE COOPERATION—A report submitted a few days ago to the Secretary of Health by Ralph E. Irwin, director of the bureau of milk control, indicates that he has just completed a cooperative agreement with milk inspectors in the cities of Cleveland, New York City, Buffalo, Pittsburgh and Erie with reference to a standardized inspection program for farms in Pennsylvania producing milk distributed by several large plants to the localities mentioned.

"This unification for farm requirements in connection with milk production will raise the general standard of sanitation and cleanliness and at the same time will eliminate a duplication of effort on the part of the cities involved," said Mr. Irwin. "A standardized form of sanitary requirements and cleanliness methods has been prepared by Cleveland, New York City, Buffalo, Pittsburgh and Erie which will cover inspection requirements for these municipalities. This plan was suggested by the Pennsylvania Health Department for the purpose of developing a closer cooperation between inter and intra-state milk service which has its origin within the confines of Pennsylvania.

"It is planned to enlarge this program as rapidly as possible to cover other sections of Pennsylvania and contiguous states, the milk supplies of which originate in Pennsylvania from focal points within its borders," concluded Mr. Irwin.

NOT A BAD IDEA—Dr. J. Bruce McCreary, deputy secretary of health, recently issued a statement advising parents who are solicitous concerning the physical and mental welfare of their children not to lose sight of possible impairments which may be present in their own bodies.

Said Doctor McCreary, "My attention was recently called to a family consisting of three fine healthy children, mentally alert and physically fit because the parents, interested in the welfare of their progeny, had taken every means to keep the well child well by contact with their family physician, who nevertheless themselves were both suffering from an incipient disease. Neither parent had the slightest idea that anything was physically amiss, and somewhat jokingly acceded to the doctor's suggestion that at least a small portion of their interest in their children's welfare might well be diverted to an investigation of their own conditions. The fact that latent tuberculosis was present in the mother and that the father was suffering from a serious heart lesion completely justified the medical investigation in their cases.

"A number of instances of extreme solicitation for children and an entire lack of interest in the parents own physical well-being justify the advice that health concern should not be made an exclusive matter and be thus limited to the younger people. It must be understood that a number of the leading disease killers of middle life have a habit of taking up their residence in the human body long before the average man or woman suffers any noticeable physical reaction. Among these diseases are heart conditions, diabetes, cancer and tuberculosis. It follows that an annual physical examination is not only advisable for youngsters but as a powerful preventive measure is equally imperative for adults. Undoubtedly early diagnosis will save many thousands of lives and a thorough examination by a physician is the only possible way to determine it. Therefore, a routine examination once a year is indicated for children and parents also."

How about it, parents?

CONSTRUCTION WORK—Coleman B. Mark, engineer in charge of construction work now taking place at the three sanatoria, has advised the Secretary of Health that the two cure pavilions at Hamburg have been completed. Each one has an 80 bed capacity. He also reported that two similar cure pavilions being erected at Mont Alto are now almost completed. As to the work being done at Cresson, he advised that the general construction for the 120 bed children's hospital at that place is well under way, some delay having been experienced because of weather conditions.

It was also announced that the plans had been prepared and approved for the rebuilding of the recreation hall which was burned down several months ago at Mont Alto.

PRIVATE WATER SUPPLIES—Howard E. Moses, assistant chief of the bureau of engineering, recently issued a warning against the careless custom of drinking water from wells and springs, the purity of which has not been bacteriologically proved.

Said Mr. Moses, "A recent outbreak of typhoid fever which caused the illness of more than 20 persons in one of the middle tier counties was conclusively established to have been caused by the use of water for drinking purposes from a contaminated well. The rural population involved were unfortunate in that their personal supplies had failed owing to the drought, and consequently were compelled to resort to hauling water from a distance for household purposes. An examination of this supply thoroughly established the fact that it was highly contaminated and was beyond any question the cause of the typhoid fever incidence.

"In view of the hundreds of wells and springs on private property it seems necessary again to warn the public against the use of water for potable purposes from sources which have not been approved by the Pennsylvania State Health Department's laboratories or by private bacteriological tests. The Department of Health is equipped to investigate and test all doubtful supplies. But this protection cannot be afforded unless it is requested.

"It is also necessary at this season of the year to indicate the real menace which is likely to follow in the wake of spring freshets. These conditions wash muck and other contaminating elements into wells and springs which in many instances carry with them the typhoid fever germ.

"Every person using a private water supply should have it checked. Carelessness in this matter is dangerous."

DENTAL HYGIENISTS—Dr. C. J. Hollister, chief of the dental section, recently indicated to the Secretary of Health that the personnel of his section are now contacting with many school boards throughout Pennsylvania for the purpose of arousing interest in dental hygiene programs for school districts.

"At the present time more than 150 dental hygienists are employed in various localities throughout Pennsylvania working directly with the school child. Less than seven years ago there were but three. Remarkable progress has been made along this line, as is evidenced by the improved health of children in the localities where such service has been in force. Parents and school men are more and more realizing the vital necessity of correcting oral defects in early life, thus avoiding many of the evil consequences which are bound to arise from a neglect of proper mouth correction. Consistent progress is being noted."

Dental hygiene in schools has been completely sold to the Department of Health as a practical and efficient method of disease prevention and it has, without question, admirably proved itself. Incidentally, Pennsylvania leads the states in the nation in this type of activity. Are dental hygienists at work in your district? You have a perfectly logical reason for asking this question.

**Testing an Individual Water Supply**

A NEW FEATURE—The Department, through its bureau of public health education, will issue, in addition to the regular weekly health talk, a dental health talk. Be on the lookout for it each week in the Friday morning and evening daily papers. Also in the weekly newspapers.

A WARNING—Dr. J. Moore Campbell, chief of the bureau of communicable diseases, has indicated that in the Spring months of 1931 outbreaks of scarlet fever may be expected in the following places: Braddock, Pittsburgh, Beaver county, Johnstown, Chester county, Clearfield county, Franklin county, Fayette county, Hazleton, Williamsport, York, Jefferson, Lancaster, Luzerne, Mifflin, Northumberland and Tioga counties. He also indicated that diphtheria may be expected in Armstrong, Chester, Clearfield, Fayette, Northumberland, Somerset and Westmoreland counties, as well as in Johnstown, Shamokin, Greensburg and Jeannette. According to Doctor Campbell, during the same period whooping cough is anticipated for Bucks, Clarion, Crawford, Indiana, Montgomery and Wyoming counties, and in the cities of Altoona, Bristol, Steelton, Pottstown, Philadelphia, Tamaqua, Oil City and Warren. It was also stated that measles may be expected to be on a prevalent basis in Berks, Delaware, Franklin, Greene and Northampton Counties, as well as in Duquesne, McKeesport, North Braddock, Swissvale, Reading, Altoona, Carlisle, West Chester, Chambersburg, Scranton and Allentown.

In explaining this statement, Doctor Campbell said, "Past experience indicates that scarlet fever, diphtheria, whooping cough and measles work in cycles. Based upon reports of many years standing it becomes possible to anticipate definite outbreaks with a reasonable certainty.

"Prevention measures are exceedingly hard to apply. However, the general principles of healthy living, proper nourishment and reasonable caution regarding exposure if conscientiously followed will be of some assistance.

"The greatest weapons are represented by the calling of a physician upon the first appearance of any condition out of the ordinary. Symptoms which frequently are interpreted as 'only a cold' often are the forerunners of communicable disease. It is at this stage of the malady that professional services are of advantage and are most efficient. The other weapon is the proper observance of the quarantine law with a respect for the regulations which it represents.

"Too many parents are prone to consider diseases characteristic of the young as necessary inflictions. This particularly applies to whooping cough and measles. However, in view of the comparatively large fatality connected with these diseases in children under five years of age this as-a-matter-of-course attitude is most unwise. More than 80 per cent of children under five years of age suffering from measles and whooping cough are likely to die, which in itself is sufficient evidence of the power of these maladies among young children," concluded Doctor Campbell.

AGAIN, THE MEDICINE HAZARD—Dr. J. Bruce McCreary deputy secretary of health and chief of the bureau of child health, has issued a warning to parents regarding the hazards of poisons and medicines accessible to children in homes.

Said Doctor McCreary, "A more than usual number of reports of deaths and serious illness occasioned by the swallowing of poisons and medicine by children has come to the attention of the Department in the last sixty days. In every instance these accidents and fatalities could have been prevented had the parents exercised the amount of caution required in the placement of such articles so as to make them inaccessible to the younger members of the family.

"While home remedies and the so-called medicine cabinet have their proper place, a real danger exists if such material can be easily reached by the young child. Several instances recently have been reported indicating fatal poisoning through children swallowing iodine, bichloride of mercury tablets, oxalic acid and pellets containing strychnine. It must be recognized that the curiosity of the small child is insatiable and that its first impulse is to place in its mouth anything of a liquid character or which suggests the idea of candy.

"The surprisingly large number of accidents in the home both to children and adults need no addition by way of the medicine cabinet route. Parents therefore are cautioned against the ever-present menace to little children of unprotected or readily accessible household remedies."

Too many casualties and fatalities are attributable to the medicine chest hazard. It might be well to take this suggestion seriously to heart.

# Vital Statistics Comment

## THE INCIDENCE OF CHILDREN'S DISEASES IN 1930

**Florence Hardy**
*Assistant Statistician*

PENNSYLVANIA enjoyed an unusually healthy year in 1930. The general death rate of 11.6 per 1,000 population was the lowest ever recorded. Prior to last year, 1927 had had the distinction of being the healthiest period in the history of registration in the State. The preliminary totals for 1930, with few exceptions, appear to set new minimum rates for many diseases. This is especially true of sicknesses peculiar to childhood.

Perhaps the most gratifying of the entire mortality report is the reduction attained in diphtheria. The number of deaths from this disease has decreased from 2,438 in 1906 to 490 in 1930, and the morbidity has shown a corresponding reduction. This has been accomplished by the immunization of Pennsylvania children with toxin-antitoxin and the continued use of antitoxin in combating the disease. The campaign to eradicate diphtheria has been one of the foremost enterprises of public health workers. Their success thus far is illustrated in the figures themselves. However, before the goal is finally reached the activities must be extended to include children of pre-school age. Tabulations of diphtheria deaths by age periods show that the greatest mortality occurs under age five. In 1929, over 55 per cent of the deaths were of children four years of age or under.

Last year witnessed a very favorable situation in regard to measles. The rate of 2.2 per 100,000 population has never been as low. This too is a disease whose mortality is highest in the younger age groups. The largest number of deaths is in the age period one to two years. The trend of this disease is unlike that of diphtheria which follows a steady downward course. The measles rate fluctuates considerably and the low record of 1930 will more than likely be followed by a high rate in 1931.

With the exception of 1918 there have never been as few deaths from scarlet fever as were registered last year. The rate of 1.9 stands as the lowest point reached by this disease. An interesting phase of scarlet fever incidence in 1930 is that while there was a material decrease in the deaths recorded there was a substantial increase in the number of cases reported. In fact, the morbidity total is the highest since 1927. This disease is found most prevalent between the ages of five and nine years and is slightly more predominant among females than males. Its seasonal peak occurs in the fall and winter months.

Whooping cough is another of the diseases of childhood which set a new low record in 1930. There were 359 deaths last year as compared with 1,550 in 1906. These totals do not include all of the mortality caused by this disease since in many instances a child ill with whooping cough develops pneumonia which is given as the cause of death. This disease which is most rampant in the early months of the year is distinctly a children's illness. The majority of the deaths are of infants under one year and while there are cases of the disease found in persons over ten years the deaths are negligible. Females are apparently more susceptible to whooping cough than males and unlike other disorders of childhood it is unusually severe among Negroes. There were 7,310 deaths from this cause in the registration area of continental United States in 1929.

In connection with this summary of children's diseases some mention should be made of the extremely low mortality among infants. The infant death rate of 66 per 1,000 live births marked a further gain in reducing the high mortality of children under one year that prevailed in former years. The rate for diseases of early infancy has dropped from 33.0 to 24.3 in twenty-five years. The reduction in deaths of infants under two years caused by diarrhea and enteritis has been an outstanding achievement in health work.

The records established in 1930 will distinguish that year in the history of the Commonwealth as one noted for its fine health conditions.

# PENNSYLVANIA DEPARTMENT OF HEALTH

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1. Mont Alto Sanatorium—Medical Director, R. H. McCutcheon, M. D.
2. Cresson Sanatorium—Medical Director, T. H. A. Stites, M. D.
3. Hamburg Sanatorium—Medical Director, H. A. Gorman, M. D.
4. State Hospital for Crippled Children—Francis S. Chambers, M. D.

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3. Pre-School—Mary Riggs Noble, M. D.
4. Dental Hygiene—C. J. Hollister, D. D. S.

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   Samuel J. Dickey, M. D.
2. Genito-Urinary Diseases—Edgar S. Everhart, M. D.
3. Restaurant Hygiene—Howard M. Haines
4. Tuberculosis—John B. Critchfield, M. D.

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2. Roadside Water Supplies—Henry P. Drake
3. Industrial Wastes—F. E. Daniels
4. Housing—H. F. Bronson
5. Nuisances—D. V. Ness

Milk Control .................................................. Ralph E. Irwin  
Nursing ................................................. Alice M. O'Halloran  
Public Health Education ................................ J. Clarence Funk  
Laboratories ........................................... John L. Laird, M. D.  
Drug Control .............................................. James N. Lightner  
Bureau of Inspection ..................................  
Vital Statistics ........................................ Emlyn Jones, M. D.  
Finance ........................................................ C. T. Williams

1. Accounts—E. J. MacNamara
2. Supplies—Roy G. Miller

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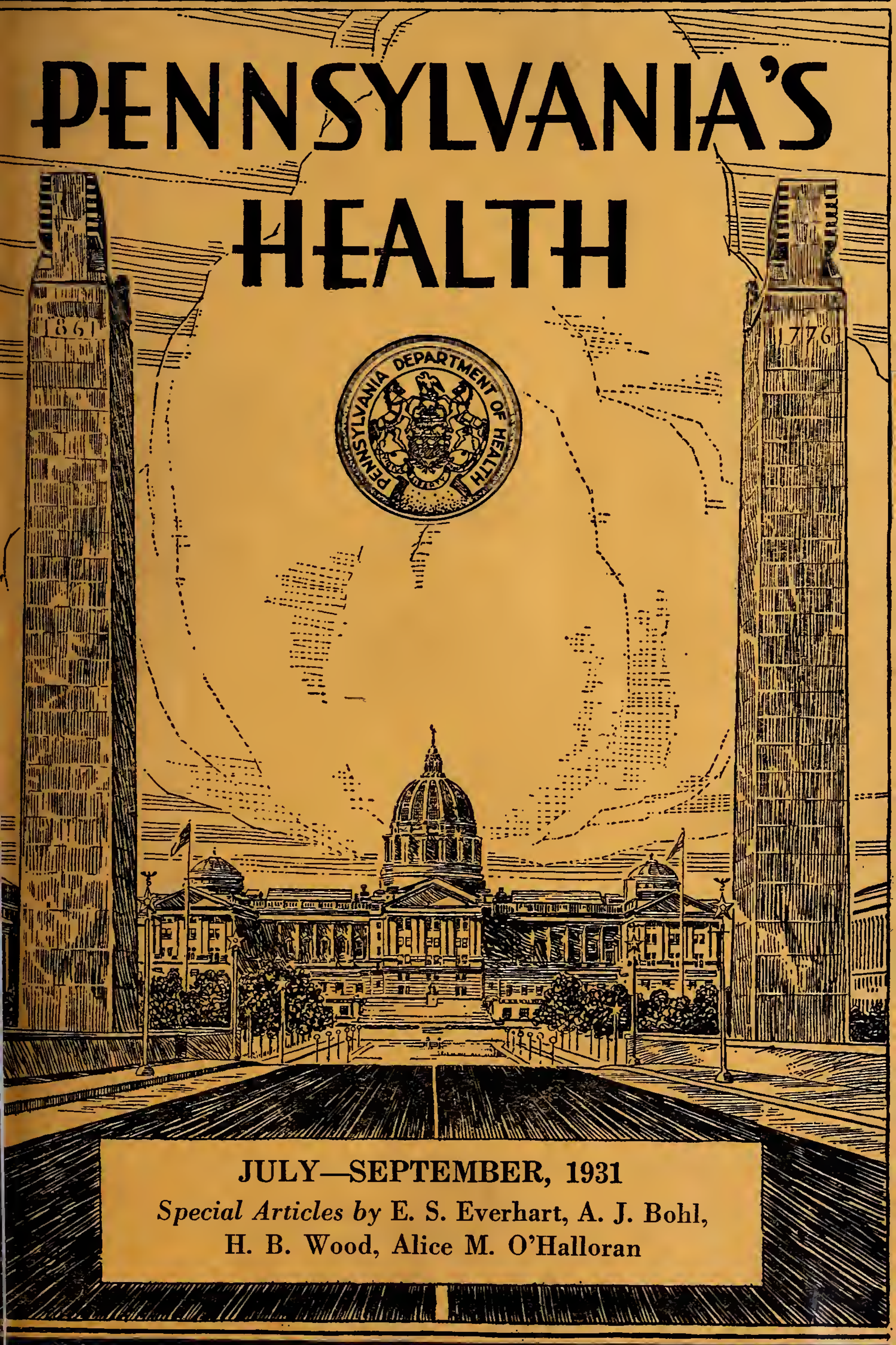
# PENNSYLVANIA'S HEALTH

PENNSYLVANIA DEPARTMENT OF HEALTH



**JULY—SEPTEMBER, 1931**

*Special Articles by* E. S. Everhart, A. J. Bohl,
H. B. Wood, Alice M. O'Halloran

# Pennsylvania's Health

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Occupational Therapy at the Crippled Children's Hospital

# Editorial

## RELAX AND LIVE!

AMERICA'S tempo is a speedy one. Modern civilization in this country demands a fast pace. In the factories, machines were set at a production level which temporarily has defeated their very purpose. And the same driving power has been the accepted scheme in the personal affairs of men. In that department also comparative defeats can be observed in the nervous breakdowns and premature deaths of those of middle age or older. To do, rather than to live, appears to be the popular psychology.

And while there is no desire to dampen the ardor and ambition of men, without which the world's progress stops, there is every logical reason to emphasize that accomplishment should be geared down to the reasonable possibilities set by nature. For, once the brain gets the better of the body, the body breaks. It is an inevitable law.

Nevertheless, there are thousands of men and women who consider that executive capacity and intelligence give them a particular license habitually to drive their bodies beyond the limits of endurance. Considering themselves quite foolishly to be in the class of super-men and super-women, they permit their absurd egotism to dictate their actions with a minimum consideration, if indeed any at all, of the limitations placed upon them by the unchangeable laws of Old Dame Nature.

Indeed this spirit is unfortunately to be found in many of the present-day customs. Not only in the business world, but in the social side of life, the smart thing is to step on the gas and thus develop and maintain a speed that is altogether out of proportion to the physical capabilities of the average person whether he or she be young, aging or old. "Let's go!" is the universal cry. "Let's rest!" are at present almost unspoken words.

Therefore, at this vacation season, it seems quite proper to suggest that everyone should seriously and honestly investigate what high-speed living is doing to him physically. Whether it is work or play, if it is demanding more of one's physical energy than one has to spend safely, if it is causing habitual loss of needed rest, if it results in hastily eaten meals, if it is driving one to the excessive use of stimulants such as coffee or inhaled tobacco, if it deprives one of daily exercise, then to play such a game is not only foolish but dangerous as well.

Life is a glorious adventure. And the road is traveled but once. The world is a magnificent place in which to be. Prematurely to sacrifice all this for an habitually unwarranted tax upon the body is sheer foolishness. Relax and live!

J. C. F.

# CONGENITAL SYPHILIS AND MEANS FOR ITS PREVENTION*

**Edgar S. Everhart, M. D.**

*Chief, Venereal Disease Section*

THE prevention of congenital or heredosyphilis offers difficulties both from the medical and social standpoints so great that sometimes it seems doubtful whether the ultimate ever can be reached. Until human nature is changed to a degree that makes the individual appreciate fully the responsibilities of parenthood in all that that word implies, there will be children brought into the world who are afflicted with syphilis, if we continue to permit it to exist. The syphilitic child is the most tragic occurrence in the whole field of syphilis. It is inconceivable that human beings deliberately inflict this blight on their offspring. If this curse is not the outcome of deliberation then it is the result of ignorance. If this be true, education properly carried out will go far to avert such disaster. The medico-social part of the management of the usual case of syphilis might appear to be an easy task since this disease possesses so many possibilities for harm to the individual afflicted, but it is quite the opposite.

Those who have had the experience of dealing intimately with persons suffering with syphilis know that on the part of the physician tact, patience, persuasiveness, force and every other quality necessary to dominate the patient must be employed in order that a cure may be effected. It is a sad commentary on human nature that the great bulk of persons suffering with syphilis, even though warned of its dangers, have a disregard for later consequences once the discernible symptoms have vanished. This, coupled with the trait of selfishness, makes of heredosyphilis a problem which will not be solved until the disease itself is eradicated. Fortunately, heredosyphilis does not extend beyond the second generation. Were this not so, the human race could not have survived. In this respect syphilis is not peculiar. As with other diseases, the factor of immunity alone has made possible the continuance of animal life.

The great bulk of syphilis contracted in marriage comes from the man who was infected prior to his having entered into that state. The need for treatment and suppression of the prostitute together with sound fundamental education of the youth at an impressionable age is therefore apparent.

The older the disease, the less likelihood is there for its transmittal to the partner. Five years after the infection has taken place the danger of infecting others is so reduced that it need not be of great concern as a public health problem. But to say the danger of transmittal has passed after five years is far from the truth as demonstrated by many occurrences.

## Fitness for Marriage

Fitness for marriage varies; with the duration of disease in the infected party; with sex, women being the least eligible; with the nature of the individual infection, since a certain percentage of cases lapses into the infectious stage; with the amount of treatment given the infected person before marriage takes place; and, finally, with the economic position of the person who assumes the marriage state. In elderly persons where the question of children is unlikely, the fitness for marriage is of rather small concern. In young persons, who form the great majority, the matter is of much concern both to themselves and to society. There is no infallible test for fitness of the infected person to enter the marital state.

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*Read before the annual meeting of the Erie Social Hygiene Association, Erie, Pa.

The absence of a positive Wassermann is of no value whatever. Lapse into an infectious state is liable at any time. Treatment of both the prospective father and the mother will greatly offset this danger, but, here again the recklessness, selfishness and complacency of human nature conspire to make of it a barrier impossible to surmount. The proposed partner should always know the facts. Unhappily this, too often, is not the case.

It may not be practical in this day to forestall the tragedy of heredosyphilis by the requirement of a premarriage examination. However, such procedure should have the effect of focusing the subject in the minds of persons who contemplate this step and bringing to their attention certain unforeseen possibilities which otherwise would be entirely overlooked. There is some evidence that examination in those jurisdictions that have adopted the premarriage examination has revealed contagion with the result at least of postponement of marriage. Wisconsin, Oregon, North Dakota, Alabama, North Carolina, Wyoming and Louisiana have adopted such a requirement. If education be of value, it would seem as though the premarriage examination should be a strong argument both in respect to prevention and to the adoption of proper and sustained treatment measures. If there is one consummation to be desired above others in this work of preventing syphilis, it is that which will stimulate the individual to take measures; first, to prevent; second, to eliminate or to reduce the hazards of the disease, the consequences of which he cannot contemplate.

If syphilis showed itself more on the surface, if it were a disease that gave more outward signs that could more easily be comprehended, if it caused pain and discomfort during certain stages of its progress, it is certain that it would not occupy the position now held as one of the major diseases which afflict human kind.

Science has invented remedies which the human race is not yet able to apply to the best advantage. Here, as elsewhere, science has been far ahead of society's ability to adjust itself.

## Education Necessary

Education of the kind that will center the thought of intelligent people upon the ravages of this disease and will point to them the proper means of averting it is a necessity, before the discoveries that have been and are constantly being made can be applied in such manner as to have the effect for which they were intended.

In taking up the question of prevention of syphilis from the standpoint of inheritance, it is advisable to have knowledge of the manner in which a free obstetrical clinic operates in accordance with approved modern methods. Coler of Columbia University has studied the problem as it is presented at the Sloane Hospital for Women covering the period 1922 to 1928, inclusive. During those seven years, 10,000 women were delivered. Of this number, five per cent had positive blood Wassermann reactions before delivery. These figures are low. Parker found in a survey of fifteen large obstetrical clinics that 8.3 per cent of cases before delivery gave a positive blood test.

Coler reports that a study in the Sloane Hospital shows that syphilis was either the actual or contributory cause of death in 23 cases. The mothers had had some form of treatment. This low percentage of five is in marked contrast to the mortality from congenital syphilis in the infants where the mother received no antisyphilitic treatment. Here the percentage is 5.14. Three hundred and fifty-four living children were born to syphilitic mothers who had received treatment. Of this number, 145 showed no evidence of hereditary syphilis and in addition had negative blood Wassermann reactions. The mortality of 5.1 per cent in treated mothers against 51.4 in untreated mothers plainly shows what treatment will do in lowering the death rate of the children.

The pregnant mother who receives treatment late in her pregnancy stands a poor chance of bearing a healthy child as compared to the one who receives it before and during its entire period. The Wassermann test, unreliable as it is, without doubt is the best means of diagnosing syphilis at this time. The obstetrical clinics should take advantage of this test. If they do not, they are missing an unequalled opportunity for diagnosis.

In the large obstetrical clinics a satisfactory increase in the application for antenatal care has been noted. In order to bring the subject to the attention of the vast majority of needed cases, considerable educational work will be required. This should be done by health departments, social service agencies and others interested in this type of work.

From what has preceded it could be inferred that the suppression of heredosyphilis is a hopeless task. To those who are working in that particular field and who have knowledge of the difficulties that constantly confront them in their endeavor quickly to suppress a disease which has afflicted the race for centuries, the task sometimes appears to be impossible of accomplishment. When this thought arises, it is time to take account of stock, to review the situation in an effort to make a proper appraisal of the facts as they exist.

Until 1905 the world was ignorant of the exact means by which the disease was transmitted from one to another. Twenty-six years is a short time to measure the value of a discovery. Quickly following this event, a remedy was elaborated which was designed to strike at it in a direct and forceful manner. Until that time the only agent used in suppressing the malady was so slow in its action that the deadly spirochetes in their race with death had a handicap as great as the modern airplane has over the old-fashioned stage coach.

Prior to the discovery of salvarsan, man had only the resistance of the human body fortified by the administration of mercury as a weapon to combat this deadly enemy. Science has given us a formidable weapon. Society has not yet acquired the power of adaptation to use it with the most telling effect. Society needs education.

Co-equal with the discovery of the spirochete and the means to destroy it quickly is the employment of the microscope to diagnose the disease in its first stage, as well as the Wassermann test. Both these bring to light many hitherto unsuspected cases impossible of diagnosis by ordinary means. With these handiworks of science man now has weapons, and will continue to have more effective ones, with which to combat this age old enemy. A quarter of a century is far too short a period to educate the masses to the use of these discoveries. Science has outrun society. It will require time for the laggard to catch up.

First, education with the view of bringing from darkness into the spotlight the dangers surrounding this disease, the means by which it may be avoided, the grouping of intelligent persons capable of leading others into the proper channels of thought and action, the use of sustained concrete effort which will provide proper treatment facilities for the great mass who are on a low economic level, are means by which heredosyphilis will finally be relegated to the same position as yellow fever which, within the memory of most of us, occupied a high place among the fearsome diseases of the world.

## The Value of Free Clinics

It is appropriate at this time to mention the part that is played by free clinics sustained by the Commonwealth and the community. During 1930 in the clinic supported conjointly by your community* and the State Health Department there were treated 150 new cases of syphilis. Imagine the possibilities of dissemination of infection possessed by 150 cases of untreated syphilis. It is no exaggeration to say that none of these cases would have received sustained treatment at the hands of private physicians. The doctor cannot be expected to give his time and material without recompense. If 150 cases with the potentiality to infect others had not been followed carefully by the clinic by bringing into use admonition, advice, and every other force given to it by regulation, it is apparent that by this time, in addition to 150, many more fresh infections would have taken place in this community. What ramifications this group infection would have taken by, say 1935, no one can estimate.

A while ago you remember there was a note of pessimism when we considered the possibilities of suppression of this disease. At that time we were not thinking of communities like Erie. When we see outstanding persons of keen discernment and unselfish interest giving freely of their time and money, it gives us cause for downright rejoicing and sustains us in the thought that once the great force back of educated people is intelligently applied, heredosyphilis with its attendant misery will no longer be a curse upon the civilized world. Even so, the relegation of this disease to an inconspicuous position will not take place within a year or within a decade. No miracle should or can be expected.

During and following the war, the movement for the suppression of syphilis appeared to have reached large proportions. The world was accustomed at that period to the expenditure of money in a lavish manner. Of necessity, retrenchment methods were adopted. Some phases of public health work were caught in the plan for retrenchment, the antisyphilis crusade among others. Happily the momentum started by the war has not been stopped with the withdrawal of large sums from the public funds. A movement like this is bound to continue so long as men and women as represented by this gathering continue to give it wholehearted and earnest support.

If we are able to judge from certain signs, I am happy to say there is a steady, wholesome growth of interest in the subject by the profession charged with the duty of molding the minds of those who are the citizens of the future. The thought of the teaching profession seems to be that their charges should know the truth in order that, being forewarned, they may avoid the pitfalls. The hopes that we have for the future lie in the hands of those who are training the youth of today.

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*The city of Erie.

With the proper use of the equipment which is now at hand and with the sustained effort of intelligent persons directed in the right channels, it is not too much to expect that another generation will see events which we in this day could only hope for.

# The Health Gnome Says—

It is fun indeed to put on speed,
In all the things we do;
A ninety-mile-an-hour gait
Seems not too fast, 'tis true.

But destination plays small part,
In all this speedy motion;
To step on it, and then some more,
Is the controlling notion.

Folks would show some wisdom
If they would stop to ponder,
That pepped up life and habits
Lead fast to "over yonder."

To leave this gorgeous world and life,
Years prior to nature's plan;
Is a frightful penalty to pay
For speed's seductive sham.

So why not use some common sense,
And thus frankly face the facts;
And live with joy and vigor
By learning to relax.

*J. C. F.*

# INSPIRATION

### A. J. Bohl

*Supervisor, Health Officers*

DID you ever read Tennyson, and do you remember the pure magic of "Excalibur" and that line, "clothed in white samite, mystic, wonderful?" What a picture you can make of that poem and that line, right in your own imagination!

Real, technical magic probably never happened, but who knows, maybe it did. Perhaps there were wizards who could rear, overnight, fairy palaces, marvels of grace and beauty. Who can say?

There is magic, though, magic of love and affection, magic that can transmute that love and affection into a shrine, a temple, something that will stand forever as a tribute to it. Witness the Taj Mahal, a lofty tribute to the love of a king for his queen. And witness that of which I am about to tell you.

Back in the Civil War days, a child was born in a small town in New York state. Like many boys, he had a good mother. But unlike many, he took to heart her teaching and example, so that she was to him a shining tower of unselfish service, of charity and inspiration. With the passing years wealth came to the man, but his affection for his mother kept steadfast, never wavering.

Now, one of the sad things of life is that mothers grow old, and at last must leave for that unknown country beyond the stars. And so it was with this mother, but she lived on in the memory of her son.

Only a year or so ago that affection, that memory, crystallized into an idea. And what an idea! I'll tell you about it in a little while.

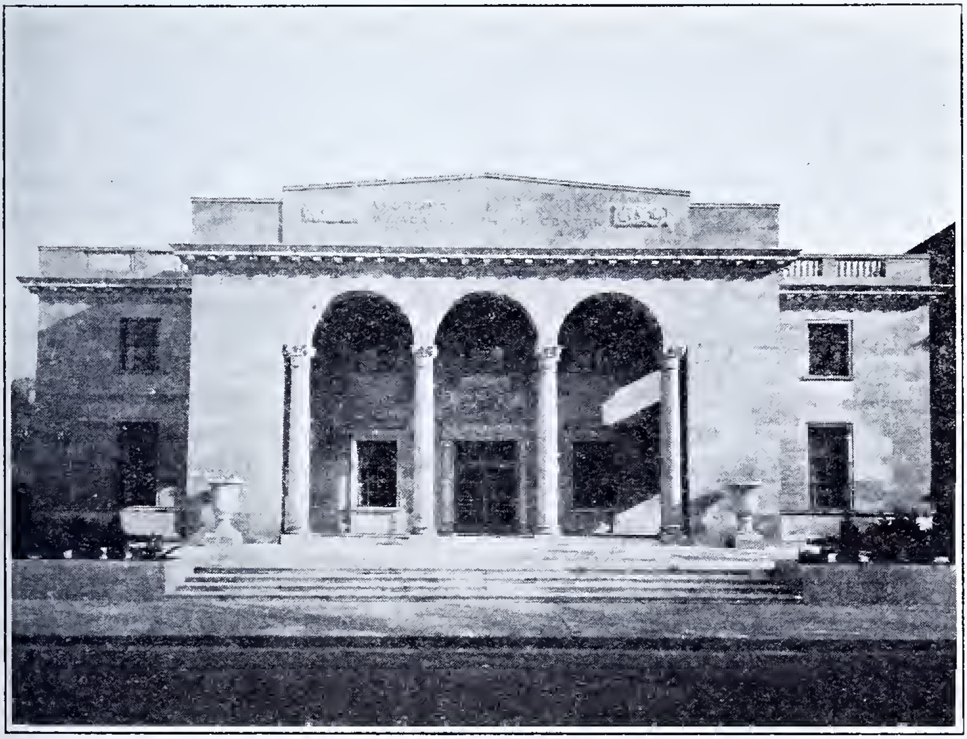
In any city in America you can find health, welfare and charitable organizations. A tremendous amount of good, hard work is done by the devoted men and women who carry on these groups. However, it is quite natural that there will be some overlapping of work and duty when there is no actual single leadership. Back in 1912, Pittsburgh realized this. It started a movement toward correlation and co-operation which developed into the Health Center. Today many of these official groups exist.

From the standpoint of pure expedience it would be possible to bring these organizations together in almost any sort of a building. A dwelling house, an office building, would serve in some degree. But there can be no argument against the super-excellence of a building constructed for the sole purpose of such housing. Here, and here only, can plans be made so that each member of the group has its own headquarters, equipped to do its own work, yet with all cooperating agencies similarly equipped and right at hand. To such a center the person needing relief can come, knowing that every agency, however remotely connected with his case, is but a few steps away.

To be sure, such things are costly—but, and now we go back to the man of whom I told you, here was one who saw a need, had the inspiration, the desire to fill it, and was financially able to do it. And he did do it, completely and magnificently.

Up in the historic Wyoming Valley lies the city of Wilkes-Barre. Just a few blocks from the center of that bustling city there stands a massive and most distinctive structure. It isn't just a building, cold and formal, for it is a home, a home of health and service. It uprears its glory clothed in the finest of smooth white granite. It is really gorgeous. And the coping atop the entrance bears the inscription written in imperishable letters of gold, "Angeline Elizabeth Kirby Memorial Health Center." There's the magic. For this building is simply the transmuted memory of its donor, Fred Morgan Kirby, the son of that mother of whom I have told you.

Now I cannot even begin actually to describe it, but I can tell something of its beauty. And it is beautiful, for in it are combined the massiveness of granite, the glowing, gleaming marbles of Georgia, Tennessee and Italy, the color of polychrome tile and terra cotta and fine bronze, and the rich surfaces of fine English oak, California teak, and American white oak. There are floors of Italian Travertine marble, and fine modern linotile, and walls and ceilings of tinted cement and plaster.



The Kirby Memorial Health Center

Beautiful glass and brilliant chrome, automatic heating, automatic elevator eloquently and beautifully represent things modern. And you will notice that there is no visible metal other than bronze and brass. All metal work is of these alloys, piping, water lines, conduits, grilles, radiator faces. There's a reason for it, as you will discover later.

An amazing use of terra cotta is seen in cornices and portico ceilings, and beneath the eaves of the blue-tiled roof. It simply glows with color in these often undecorated spaces.

One very special room remains to be seen after the tour of office and clinic room is completed, and that is the solarium. It occupies most of the third floor. It is a big room, walled in soft green tile, with decorative pediments of polychromed terra cotta on the east and west walls. The floor is of special linotile, into which large game boards have been inlaid, for this is the children's room. The whole is skylighted, and it is constructed of vita glass so that the beneficial rays of the sun may glow through.

The whole place is marvelous. I could go on and on telling you about the decorations and furnishings, the rugs and special equipment. The marble walled dental clinic, for instance, with its green enameled dental equipment, and the laboratory and X-ray room and the monel metal kitchen, but as yet I haven't told you anything about the use of the building.

The Health Center, though located in Wilkes-Barre, is for the use of the entire Wyoming Valley, the rural districts, Pittston, Kingston, Shickshinny and all the other boroughs and villages. And that represents a lot of people, for Luzerne County has a population of nearly 450,000, with a big percentage near Wilkes-Barre. So there's a lot of service work going on.

The Health Center houses: Catholic Charities, City Health Department, Dental Clinic, Luzerne County Social Hygiene Society, Mental Health Association, Mothers' Assistance Fund, State Department of Health, which includes county medical director, district sanitary engineer, genito-urinary clinic, prenatal clinic, tuberculosis clinic; United Charities, Wilkes-Barre Visiting Nurse Association, Wyoming Valley Crippled Children's Association and Wyoming Valley Tuberculosis Society.

The City Board of Health plays a big part in the Center, for its membership, and the members of the Center's board of directors, are identical. Moreover, the city health officer is the manager at the Center.

So there you are, every service organization in the valley under one roof, all interlocking and working together as smooth as oil. I needn't tell you anything about the organizations, for their names tell you what they are doing. And anyway this story is about the Center and its inception and construction.

Remember this, the building was planned and built to last three hundred years. That's the reason for the lavish use of granite and marble, bronze and brass. And just picture the future, how the tides of life to come will surge and sway around the Memorial. It may some day be a pigmy among giant structures, for its surroundings may change, but through all the years it will stand. Think of it, the year 2231 A. D., and this beautiful structure still functioning, a bit worn perhaps, and mellowed by time and the elements, but a sturdy rock of granite splitting the tides of terror and trouble and illness and resolving them into peace and happiness and health.

And over the ornate entrance that golden inscription will gleam, through ice and snow and mid-summer heat, a silent testimony to the love of a man for his mother. There, is real inspiration!

# A SYMPOSIUM ON CANCER

(Editor's Note:—The vital importance of presenting cancer facts to the medical profession and the laity has prompted the use of the following bulletins prepared by leaders in the field of cancer research and issued by the Commission on Cancer of the Medical Society of the State of Pennsylvania.)

## THE DEFENSE OF A COUNTY AGAINST CANCER

### The Family Physician

**J. M. Wainwright, M. D.**

THE cancer problem is looming larger and evermore exacting. The number of cases seen by the medical profession is increasing each year. The interest of the general public is increasing each year and the number of people coming to the physician with very early cancer, in a stage when diagnosis may be difficult, is also increasing. So also is there an increase in the number of people who come with benign conditions which require great care to differentiate, people who require the confidence established by complete and careful work to be comforted. Each year brings new responsibilities, necessitating increasing knowledge and skill to meet fully our responsibility.

There is no group of patients who need the very best that modern science and a devoted medical profession can provide more than those who have or may be suspected to have cancer.

The family physician is and always will be the first line of defense between the patient and unnecessary death from cancer. Sometimes he is the most important factor all through.

The balance between life and death is often decided by the family physician upon the first visit to the office or at the bedside.

The contribution of the family physician to cancer control in general and to the safety of his individual patient in particular includes three definite things: First, a carefully obtained, written history; second, a complete physical examination, aided, if necessary, by the resources of the specialists; and third, whether the diagnosis is positive or but tentative, insistence upon immediate proper and adequate treatment or investigation.

1. THE HISTORY—The physician cannot of course take an adequate written history of every patient who comes to his office. In some cases it is not necessary. But in the case of a patient with possible cancer the history may be the key point to the diagnosis. So who of us can pass by this safeguard?

2. THE PHYSICAL EXAMINATION—A distinguished British surgeon said recently, "The practitioner who sits at his desk and agrees with the anxious patient that rectal symptoms are due to hemorrhoids, and who does not insist upon a digital examination, or if necessary a proctoscopic or X-ray examination, and who writes a prescription for hemorrhoids with no examination, may not be writing a prescription but instead a death warrant."

Much more than the history, the complete and immediate physical examination (with "scopes," X-ray, or even a biopsy) may turn the scale between life and death. Who of us can let this safeguard pass?

3. INSISTENCE UPON IMMEDIATE ADEQUATE TREATMENT—Here most of all perhaps the role of the family physician is paramount, for the patient naturally has more confidence in him than in any other physician. If the family physician is equipped to carry on the necessary treatment, well and good; provided only that he does not delay. A great responsibility also comes to the family physician when it is necessary to refer the patient elsewhere, perhaps to strangers, perhaps to a hospital in a distant city. The patient does not want to go and will raise a multitude of excuses. It is said that the curability of some cancers diminishes four per cent in a week. However true this may be, it is a good working rule. Who of us can allow our patients to lose even four per cent of the none too great chance?

## EARLY DIAGNOSIS OF CANCER OF THE STOMACH AND COLON

### George W. Grier, M. D.

IT is an unfortunate circumstance that few patients suffering from cancer of the stomach apply for treatment early enough to allow any effective treatment. For this reason it is all the more important that the physician be on his guard in dealing with digestive complaints in a person of cancer age. Unless the cancer is at the pylorus, the symptoms are astonishingly mild until in a well advanced stage. Slight indigestion, anorexia, or a sensation of weight in the epigastrium should be sufficient cause to call for an X-ray examination, as the lesion can usually be discovered at a much earlier stage by this method than if one relies on symptoms and physical signs. If the cancer is at the pylorus, early obstruction follows with marked symptoms, the patient applies early for relief, and the X-ray findings are characteristic. Operation in this location offers better prognosis than at any other, so there is good opportunity for improvement in the treatment of cancer of this type, provided the diagnosis is made early.

In cancer of the colon, there is a reasonable chance of cure if operation is performed early. Here again X-ray examination will reveal the lesion in a high percentage of cases. Any patient of cancer age suffering from unusual constipation, even though slight, or who passes blood or mucus, should be submitted at once to X-ray examination.

## SKIN CANCER

THIS malady once carried a high mortality, but in the light of present day knowledge, few patients need die of this disease. The lesion usually occurs in a conspicuous place, most often about the face, and is therefore discovered at a very early stage. Because the lesion is disfiguring, or unpleasant, the doctor is consulted early, and if he recognizes the condition, the chances of a complete cure are very good. The diagnosis is usually not difficult. The persistence of a skin lesion, usually ulcerative, in a person of cancer age, is always suggestive. Epitheliomata usually have a raised, pearly, indurated edge, which is entirely characteristic. If this is not present, biopsy is easy and settles the matter. Basal cell epitheliomata are practically all curable. Squamous cell epithelioma is more resistant to treatment and tends to metastasize. Therefore, treatment must be early to be successful. Both the primary lesion and the area of probable metastasis must be thoroughly treated in this type.

Epithelioma may be treated by any method which completely destroys or removes the lesion. X-rays or radium probably accomplish this end best in most cases, but many cases have been treated successfully by caustics, cautery, fulguration with high frequency spark, or excision. The essential is that the lesion be entirely and absolutely obliterated while still in an early stage. If metastasis to lymphatics has already taken place, these may be removed by operation, or treated by X-rays or radium, but the prognosis is infinitely more serious than if treatment is instituted before this complication arises.

## X-RAY DIAGNOSIS OF MALIGNANCY OF BONE

THE great value of X-ray in the diagnosis of bone tumors lies in the differentiation of benign from malignant lesions. The former can usually be cured by appropriate operation. Often the deciding point in diagnosis, and consequently in treatment also, rests upon competent X-ray examination.

Sarcoma arises primarily in bone. In a general way there are two types: those that produce new bone, and those that are entirely destructive in character. The bone production type, so-called osteogenetic sarcomata, usually arises in the periosteum or cortex of the bone and extends out into the soft tissues, forming a large tumor mass in the soft tissues. The destructive type, so-called round cell or spindle cell sarcoma, usually arises in the medulla of bone, and as the tumor grows it completely destroys the tissue into which it advances. Both types are accompanied by a very high mortality and if the treatment is to be successful, it must be carried out very early. Occasionally, sarcoma of the small cell type may be cured by radiation. The osteogenetic type may be cured by high amputation if the disease is recognized early enough. If X-ray examination shows metastasis to the lungs, radical treatment is, of course, contra-indicated. So-called giant cell sarcoma has a different appearance on the X-ray film from the other types of sarcoma. This is really a benign tumor. It does not metastasize, and it can be cured by proper operative procedures.

Carcinoma of bone occurs as a metastatic process secondary to a primary lesion elsewhere. The detection of this process by X-ray is a reliable procedure, and, if found, will prevent a useless operation on the primary lesion, which may be located in the breast, uterus, prostate, or other organ.

## X-RAY TREATMENT AS A COMFORT TO THE INCURABLE CANCER PATIENT

"HOPE springs eternal in the human breast." To rob a cancer sufferer of his last hope of relief is to hurry him off to the grave often much sooner than is necessary. The patient's mental condition is always much better when some effort is being made to relieve him.

Although the treatment may not have any specific beneficial effect on the malignant involvement, the patient's general physical condition will be better for the efforts which are being made to help him. From this standpoint alone, X-ray treatment is justifiable in any case.

A much more important fact is that it is impossible to predict the response of any cancer case to radiation treatment. Sometimes apparently hopeless cases improve in a remarkable manner and may carry on a more or less useful existence for years. Since we all must die sooner or later, no person is ever permanently cured of anything. All any treatment can do is to prolong life for a certain number of years. If the treatment in question prolongs life at all, it is successful to just that extent. If there is any possibility at all that X-ray treatment may relieve the patient and prolong life, one has not done his whole duty by the patient if he does not give him the benefit of such treatment.

Another benefit derived from X-ray treatment in these cases is relief from pain. This commonly follows treatment, and, if it does, the treatment is well worth while. In obviously hopeless cases it goes without saying that the treatment should never be applied in such a manner as to add to the patient's discomfort.

## CANCER OF THE ALIMENTARY TRACT

### Exploratory Laparotomy All-Important

### J. L. Atlee, M. D.

WHERE cancer is accessible to early diagnosis and given prompt and efficient treatment, the percentage of cures is very good. This has not applied to cancer of the alimentary tract in the past because the text-book symptoms of tumor, cachexia, hemorrhage, etc., are just as useful to the patient concerned as his own post mortem report would be. Intestinal obstruction should be no more a symptom of cancer than perforation is of typhoid fever.

The symptomatology of cancer of the alimentary tract must be entirely reconsidered if we are to reach a diagnosis sufficiently early to be of benefit. The valuable and important signs are well within the powers of the general practitioner to detect, and he is the one both by training and opportunity to arrive at least at the point of such strong suspicion as to warrant consultation and intensive study.

The first danger signal, the most important diagnostic sign, is that a change has occurred in your patient, a change in the sensations relative to the digestive tract. Where formerly a patient was comfortable, he now has some discomfort, a sense of fullness, gas, belching, a change in the character of the bowel movements, constipation, or diarrhea. If such symptoms occur in your patient, at any age, more particularly the cancer age, bear cancer in mind at once. If such symptoms persist for a month, especially if associated with loss of strength and weight, then the suspicion of cancer is sufficiently great to warrant intensive study to determine the cause. If no cause is found, then an exploratory laparotomy must be considered. This exploration should be done not by the occasional operator, but by a surgeon capable and equipped for the most difficult abdominal work. *Your patient wants a cure, not merely a diagnosis.*

Forget "indigestion." Patients who were formerly well do not get "indigestion" without some definite mechanical reason, and patients who formerly had "indigestion" should be suspected if the character of that "indigestion" changes. The worthwhile study is in the hands of the general practitioner and needs only his five senses and his common sense. Confirmation should be sought of course by employing the few valuable clinical tests that are known.

If the patient complains of difficulty in swallowing, which persists for a few weeks, food sticking at a certain place, thinks he has swallowed a bone or something that cut the throat, then X-ray and possibly esophageoscopy are necessary. With distress in the upper abdomen, gas, belching, change in appetite, coming on in one formerly well, a fractional gastric analysis may show achlorhydria. X-ray may show a lesion. But if weight and strength are lost, explore—and quickly—even in the face of negative reports. With distension in the lower abdomen, fullness, gas, change in bowels to constipation or diarrhea, X-ray will be negative in 20 to 40 per cent of early cases. Here, too, exploration may be the only means of settling the diagnosis, and *exploration is well worth while* to any patient suspected of having cancer, if only to have its absence definitely established. If the patient complains of piles, hemorrhoids, lump in the rectum, pain in the sacrum, persistent diarrhea, make a digital examination at once. Most rectal and all anal cancers are easily felt by the finger; the rest are easily found by careful proctoscopy. X-ray by barium enema will be helpful, but will not rule out a growth, if negative.

In short, if we are to make the diagnosis of cancer in the alimentary tract sufficiently early to save the patient and our own reputation, we must stop, look and listen, at any persistent change in the abdominal sensations of our patient, and suspect cancer until some other cause is proven. If such change persists for four, six, eight weeks, then at least have a consultation with an experienced and competent abdominal surgeon.

## WHEN SHOULD THE GENERAL PRACTITIONER REFER THE PATIENT TO A SPECIALIST FROM THE CANCER VIEWPOINT?

THE general practitioner is the backbone of the medical profession, of which it is trite to say that no one member's mind can compass the various refinements in diagnosis known to medicine today. We frequently need the aid of the man who has limited his time and energy to some one special department.

One symptom that immediately and always demands special study is hematuria. Blood in the urine is never normal, always wrong. The cause thereof can usually be detected only by a careful cystoscopic examination at the hands of a competent genito-urinary specialist.

Bleeding from the vagina after the menopause, and earlier in life between the menstrual periods, especially on irritation, likewise is always a red light that means danger. Do not be satisfied if the routine pelvic examination is negative, for then the danger of cancer is all the greater, and study by a skilled gynecologist is essential.

Every tumor of the breast, and bleeding and discharging nipples with or without tumor, requires a lot of study and experience in such cases for correct diagnosis and treatment.

Do not wait to see the flames before sending for the fire department. Turn in an alarm every time you smell smoke and let the other fellow do the worrying.

Do not accept the patient's diagnosis of piles, especially if the symptoms have developed gradually in later life. Look and feel, and if not very certainly hemorrhoids and nothing else, have a more experienced man do a proctoscopy.

Very few of us have devoted our professional lives to looking down the esophagus and trachea, but those who wish to be experienced must do so. Refer the patient who complains of difficulty in swallowing, or of an irritating cough, to such a specialist.

"Indigestion" appearing in later life, the wolf in sheep's clothing, may need roentgenologist, internist, pathologist, and then a good surgeon to reveal the truth.

Finally, any sore, anywhere, at any time of life, that fails to heal promptly demands special study by a good pathologist. Of course you will have had a Wassermann made, and smears and cultures, but there is no law against having two or more diseases at the same time. Because your patient has lues is no reason to diagnose an ulcer of the lower lip as syphilitic.

Cancer, like fire, can easily be stopped if it can be detected and reached in its very beginning. But when once well started the story is vastly different. To "wait for developments," if cancer is present, is waiting for agony and death, not for cure.

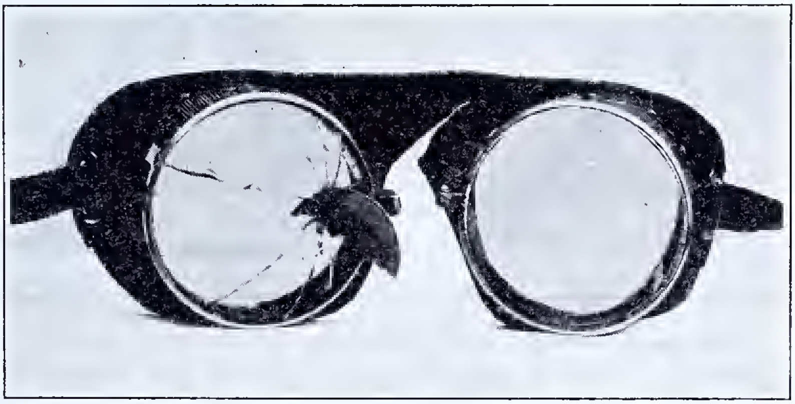
# PROTECT THE EYES

## Harold B. Wood, M. D.

*Epidemiologist*

THE eyes are an extremely useful part of the body, yet many people are exceedingly careless with them. The eyes once lost cannot be regained. Slight injuries to them may become serious and result in blindness if not promptly and properly treated. No injury to the eye is so slight as not to deserve proper attention. Infections in the eyes progress more rapidly than in any other part of the body and often destroy the sight. Infection in one eye may involve and destroy the other.

Proper first-aid treatment for an injured eye is exceedingly important or the sight may be lost. When an eye is injured by a blow of some kind, ice water or ice wrapped in a clean cloth should be applied as soon as possible. Never, under any circumstance, should hot water or other hot applications be applied to the eyes, except upon direct orders from a physician. Even then hot water is rarely used except when there is the condition called pannus. Poultices of any kind should never be applied to the eyes. They always help germs to grow and to destroy the sight. No solutions should be used to wash or bathe the eyes except cold clean water or boric acid solution, unless directed by a physician. Advertised eye washes are dangerous. Barbers should never be allowed to drop solutions into the eyes of their customers. Eye diseases and eye injuries should be attended to only by physicians.

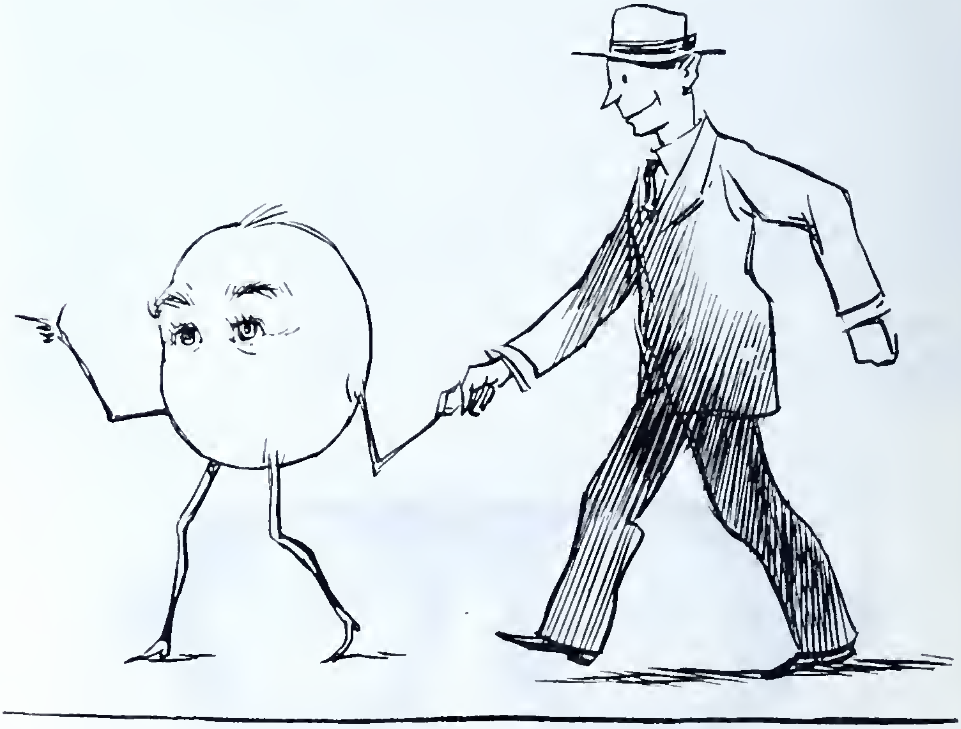


**Goggles Showing Piece of Emery-Wheel Dresser Which Broke While Being Used, Piercing the Glass. What Would Have Happened to the Eye if the Goggles Had Not Been There?**

Cinders, dust or other small particles which blow into the eyes should be removed promptly. They may be washed out with cold water, or by gently pulling the upper lid down over the lower these small foreign bodies may sometimes be dislodged. If these attempts will not remove the speck, and if a physician or nurse cannot conveniently be found, it may be necessary to have somebody else remove the cinder. In such case a soft piece of cotton or the corner of a clean handkerchief which has been wet in water, and not wet by spittle, may be used. Whatever is used must be clean, soft and wet. Under no circumstances should a match or toothpick be used to remove a cinder. A small piece of wood may have a little absorbent cotton twisted about it and, when wet, may be used for removing motes from the eyes. It is exceedingly easy to damage the eye, to infect it, or ultimately to blind it while attempting to remove a cinder.

Any small particle which gets into the eye from an emery-wheel, or comes with some force from some industrial activity will embed itself deeply and is not easily removed. Such cases should go at once to a physician.

The problem of preventing blindness requires much attention, the care of the blind is more costly. Almost anybody may have the opportunity of preventing somebody being blinded, and everybody is taxed to care for the people who are blind because those directly concerned did not attempt to save the sight.



**If Your Eyes Hurt Let Them Lead You to the Doctor**

The State Council for the Blind has made a survey in 26 or 27 counties and covering about three-fifths of the population of Pennsylvania. It has found 5,800 cases of "blindness." Those persons listed in this survey as having blindness have, according to medical phraseology, a vision of 20-200 or less. This definition of blindness was selected as it is the defect of vision which usually admits to institutions for the blind. This survey shows about twice as many cases of "blindness" as are reported in the U. S. census, owing probably to an inaccurate understanding as to who should be considered as being blind.

There is no universal definition of blindness. One person may be totally blind to a degree that he cannot tell sunshine from night; others may perceive light to various degrees; while other persons may be·able to count their fingers when held up to the bright light but cannot distinguish form or color, and others have more and more vision but are still helpless as far as their sight is concerned. Again, the blindness may be only in one eye or may be in both.

The causes of blindness are many, the most important being accidents, including those due to industry, ophthalmia neonatorum, trachoma and syphilis. Glaucoma causes a very large proportion of adult blindness. Smallpox, preventable by vaccination, causes some. Alcoholic nephritis is responsible for many. Wood alcohol or methylated spirits or alcohol, and anti-freeze solutions for the automobile radiator and denatured alcohol when drunk as a beverage have caused many cases of sudden and permanent total blindness.

Accidents cause many cases of blindness. Such accidents which destroy the sight occur at all ages and range from letting little children play with scissors, from bows and arrows, air-guns, sling shots, popguns, pea-shooters, firecrackers and sparklers to premature explosions of blasting powder, to the use of emery-wheels without protective goggles being worn, and to many other avoidable accidents of industry or home life. The eyes of children can best be protected by not permitting the children to have the dangerous toys until they are old enough to learn to be careful, and they must be taught not to point their shooting toys at other children.

Industrial accidents which damage the eyes do an enormous amount of destruction, nearly all of which could be avoided by a little care and precaution. Between 1916 and 1930, the Pennsylvania State Compensation Board received reports of 8,619 cases of serious eye injuries in which there were 237 accidents resulting in total blindness. During 1930 there were 19 cases of total blindness from reported industrial accidents. The compensation paid in the 8,619 cases of eye losses totalled $12,541,673, an average of $1,508 per accident. This enormous money loss was paid directly by the employers or insurance companies, but this cost was included in overhead cost of production and so was included in the price of the goods manufactured. So the bill was paid by the public.

The cost of one case was enough to have saved the other 8,618 persons' eyes, if the workmen would use the goggles or other protectors they are told to use. The general public was not the only one who paid for this damage to the eyes. The workmen who carelessly omits wearing goggles, or refuses to wear them when they are needed, suffers most. Machinists who sharpen their tools on emery-wheels, welders, stone cutters, chippers and others whose eyes are frequently exposed to flying particles should not think that if they are injured the compensation law will make things easy for them by providing a lot of money. They should understand that the compensation law provides only for 65 per cent of their former wages, or a maximum compensation of $15 a week and for not over 300 weeks, except in case of proved total disability when the compensation may go for 500 weeks. It should also be understood that no compensation whatever is paid unless the injured person is laid off from work for over seven days, and none is paid for those lost wages of the first seven days.

It is thus seen that to be recompensed for an industrial injury is not a sinecure; it is not meant to be, but only welfare payment to render some assistance. The most any man can collect for total blindness caused by accident as a result of an industry in only $7,500, and every pair of eyes is worth more than that. It costs more than that to take care of a blind man for the rest of his life. From a cash basis it does not pay to fool with the eyes and to subject them to any accident which may injure them.

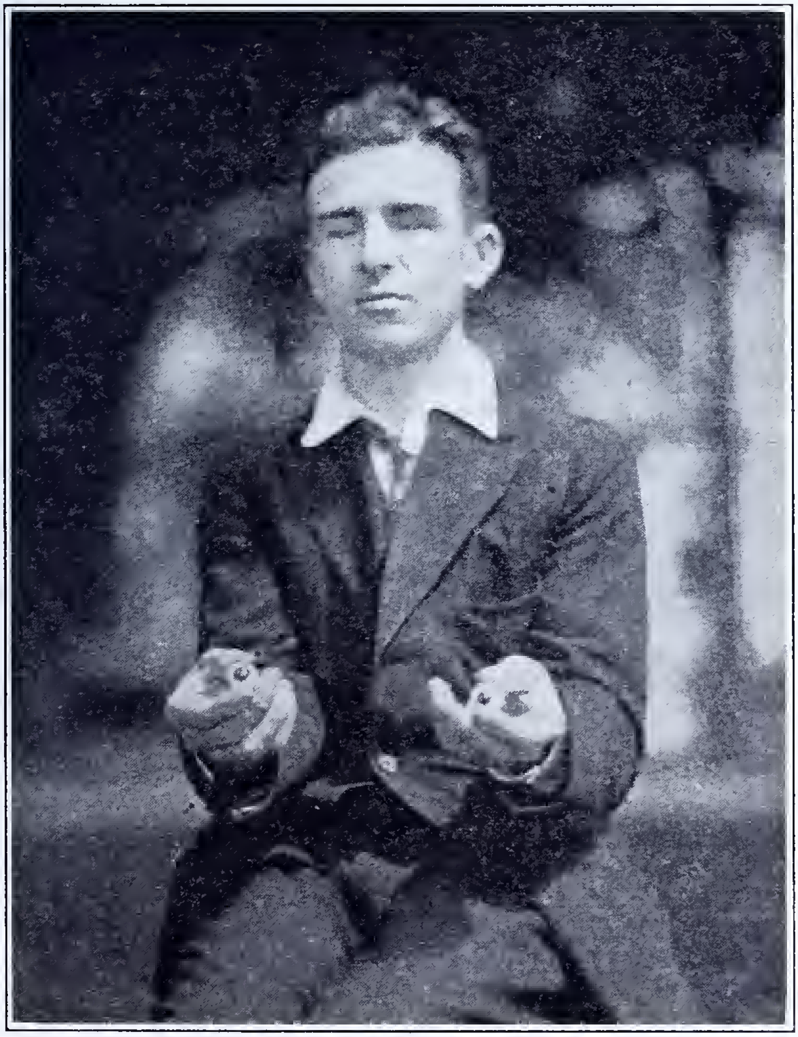
Eye injuries for which compensation has recently been paid were caused from such activities as chipping iron, lathe work, operating a milling machine, cutting stone, sharpening tools on grinding stone, riveting while hot chips flew from the rivet, grinding on emery-wheels, welding, from splash of molten metal from a cupola and splash from a galvanizing bath. These are all occupations in which the workmen should wear goggles. Had goggles been worn, not one of these accidents would have happened. However, more and more goggles are now being worn than formerly, but many men will not wear them unless required to. They seem willing to take chances, even if they become blind in consequence. Threatening men with immediate discharge if caught not wearing goggles when they are needed is advisable, but not always effective. It may be more effective, as has been proved, to fire the foreman if his men do not wear their goggles.

**Properly Selected Goggles, and the Willingness to Wear Them, Have Saved This Man's Eyes Sixteen Times**

Goggles are not the only things needed to protect the eyes in industry, of course, but machine guards and hoods, exhaust systems and wet grinding processes are essential where they can be applied. These necessary accessories to industry are required by law and are installed with all modern equipment.

Various diseases cause the loss of sight and every case of blindness produced by an infection or by a communicable disease is avoidable.

Ophthalmia neonatorum, or "blindness of babies," is a prolific source of blindness. It is the most common cause of blindness of children in the schools for the blind. Pennsylvania is the third from the worst state in the amount of this contagious eye disease. The disease is required by law to be reported to boards of health and yet is very incompletely reported. Even so, from 1914 to 1930 there were 2,159 cases of ophthalmia neonatorum reported.



**Glass or Real Eyes, Which?**

The disease begins to appear in little babies about the third to fifth day after birth and, unless properly treated, and often in spite of careful treatment, it will leave white spots or opacities on the cornea which very seriously damage the sight. It frequently causes total blindness. This disease is usually but not always due to gonorrhea in one of the parents. Numerous cases have been proved by bacteriological investigation to be due to colon bacilli, streptococci or pneumococci. When the baby is born any germs can very easily get into the eyes and almost any of them are capable of producing ophthalmia with resulting blindness.

The disease can easily be prevented by the attending physician washing the eyes with the proper antiseptic solution immediately after birth. Because the disease is so easily caused by any of the germs which usually live in the intestines, the eye antiseptic (five per cent argyrol or two per cent silver nitrate solution) must be used in the eyes of all babies immediately after birth, no matter who the parents may be. After the doctor has sterilized the eyes of the baby, the mother should not infect them while she bathes the baby. The baby's face should be washed with a wash-cloth which is not used for any other purpose. The towel used on the baby's body should not be used on its face; and what is very much more dangerous is to wipe the baby with the wash-cloth, sponge or towel which the mother has used on her own body.

Trachoma is an important, blinding disease, even in Pennsylvania. All cases must be reported to the local board of health. From 1906 to 1930, 1,685 cases were reported in this Commonwealth. Trachoma is spread through the use of towels or pillows which have been infected by other persons who have this eye disease. It is a slowly developing disease and ends in total blindness. Early cases can be cured by operation.

Cataract or a developing opaque condition of the lens of the eye causes blindness which is curable at certain stages. It can be cured only by operation and this operation must be done at a certain time when the cataract has reached a certain period in its development. If the operation is delayed then, the person must remain totally blind, as a later operation is not possible. There is no substance which can be put into the eyes which will absorb a cataract. Quite frequently people listen to quacks who promise to dissolve cataracts, but the humbuggery finally fails and the poor patient remains hopelessly blind.

# THE BUREAU OF NURSING

## Alice M. O'Halloran, R. N.

*Directress, Bureau of Nursing*

THE Department's nursing service began as a specialized service in tuberculosis in conjunction with answering the call of any disaster or epidemic. In the early years these were frequent.

The tuberculosis service as conducted now is a part of a generalized program. In certain centers throughout the Commonwealth there are clinics held for chest examinations. The nurse is responsible for its cleanly and orderly condition. It is her duty to meet the patients. After making the patient comfortable she learns his history. This information is recorded on prescribed forms. She weighs and measures the patient according to definite regulation. The temperature is likewise recorded. At the time of this visit the nurse acquaints the patient of her desire to visit him in his home. This procedure is repeated with all new patients. Persons who have visited the clinic on previous occasions are weighed, temperature, pulse and respiration are recorded; and at regular intervals they are re-examined by the physician.

Upon the arrival of the physician the records are ready for him. He can then proceed with the examination of the patient, and when practicable the nurse remains, hears the instruction and advice, thus making it possible for her home visit to result in intelligent assistance.

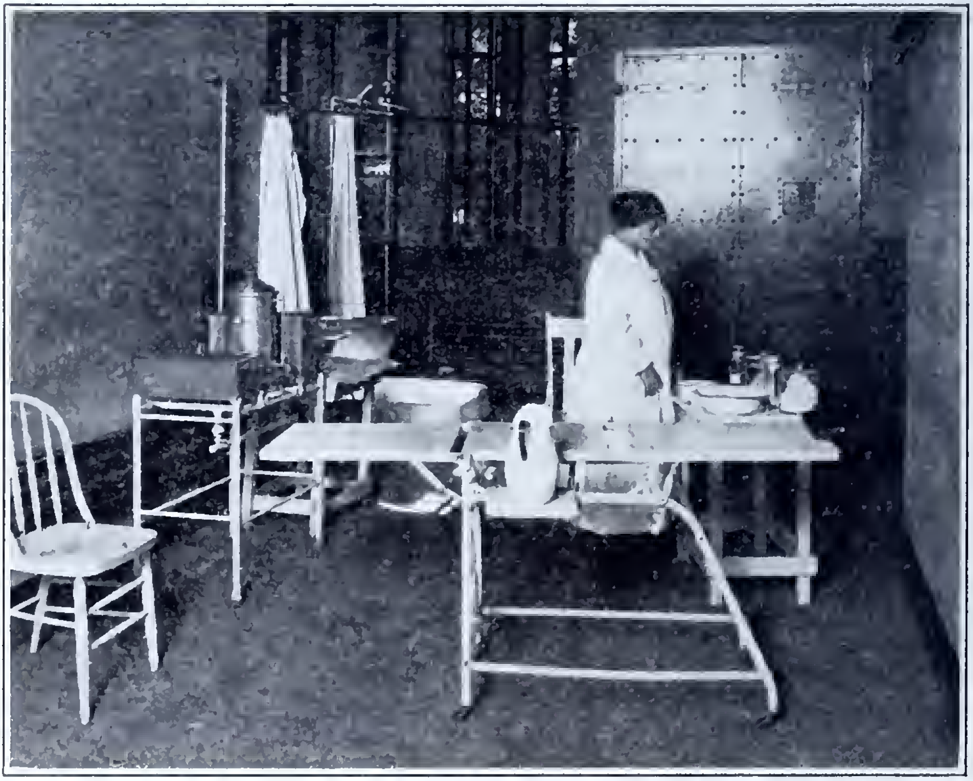
In conjunction with the clinic visit frequently there is much to be done in the way of welfare assistance so as to enable the nurse to carry out the instructions. Welfare agencies and philanthropic organizations are appealed to for cooperation after the nurse has familiarized herself with home conditions.

In the home she helps the patient to arrange his sleeping quarters whereby he will have the best his residence has to offer—care of dishes, sputum, disinfection, etc. Of these, and many other points, she advises the family. Where there are children and the patient has an active lesion she advises the family of the necessity to have the children examined and kept under medical supervision. Depending on the amount of cooperation from the family and the kind of adjustment necessary for the betterment of the patient, her home visits are repeated at more or less frequent intervals. In the home she not only by her example and tact is the teacher, but she must be endowed with a special gift to impress her patients with the necessity of carrying out her instruction.

We feel that a nurse who has made a good tuberculosis visit has covered each detail of public health because it included not only personal hygiene, sanitary hygiene, diet and housing conditions, but everything for the care of the sick and the prevention of illness.

In the routine of her daily work is her activity as health officer. Here the nurse has a definite territory which usually includes many townships. Physicians living within her district report communicable diseases to her on special forms. As soon as possible she arranges to make the home visit, instructing the mother or caretaker; helps with the isolation of the patient; and quarantines the premises. In connection with this branch of the service it is frequently necessary to secure maintenance for the family. A great deal of social service is involved. In addition to the educational feature it frequently falls to her lot to exercise police power for the elimination of nuisances. A close follow-up is often necessary to secure nuisance abatement and a definite time for the removal of the quarantine placard.

Back again to the clinic she returns for another type of service, the venereal clinic. Here again she carries on much the same as she did in the hospital operating room. It is her problem to attend to the sterilizing, keeping of the records, etc. The personal history of the patient is secured by the physician. When patients become delinquent, visits are made on a notification sent by mail or police assistance is secured. Some difficulty is frequently met in this type of service due to fictitious addresses.



A Venereal Disease Clinic in a Quarantine Station

After the adults have had their share of her time well-baby clinics are held for the infants and children. In some instances she has more or less lay help, but it is her responsibility to have the clinic clean and orderly. It is also her responsibility to keep the records. Meeting the mothers and helping them to understand the advice given by the physician means that here, too, she follows up the clinic service by her visits to the home where the baby's food, clothing and sleeping quarters must be regulated to guide and improve the well baby. No lack of attention is given to the pre-school children to make them ready for their entrance to school. In this activity she plans for toxin-antitoxin, correction of defects, etc., so that the child may have a chance for a good start. In conjunction with this activity she has the midwives. The midwife notifies the nurse of the delivery made. As soon as possible after receipt of this report, the nurse makes a home visit.

That none may be missed it is her duty to call upon the registrars in her district. She secures from them the names and addresses of births reported. She then makes a home visit; more than one if the conditions justify it. Frequently she meets babies whose births have not been recorded. She helps the parents to have this registration made.

In the midst of her day should there be an accident or an emergency of any kind she responds at once, going to the scene of disaster, notifying the office of the occurrence. Upon receipt of the information the office supplies additional nursing service if necessary. Should there be a disaster and the central office knows of it first, the nurses along the route are notified by telephone or telegram to respond to a given point at a given time with specific equipment, prepared to act for an indefinite time on this emergency.

**The Nurse and a Toxin-Antitoxin Clinic**

If an epidemic occurs the nurse in charge of the affected jurisdiction visits the scene, making necessary arrangements for such additional service as may be required.

In order to have the nurses kept informed of present day methods and to instruct them in various activities as carried on by the Department, schools of instruction are held. Conferences are also conducted, using the sanatoria as the seat and the county as the field or unit for the demonstration.

## DEPARTMENT NEWS

PENNSYLVANIA PUBLIC HEALTH ASSOCIATION MEETING—One of the most successful meetings of the Pennsylvania Public Health Association was held in Harrisburg on June 18th and 19th. It was by far the most largely attended in the history of the Association. Outstanding speakers were on the program, including Governor Pinchot, Doctor Hugh S. Cumming, Surgeon General of the U. S. Public Health Service and President of the American Public Health Association, and Charles E. Roth, D. D., Litt. D., ex-National President of the Reciprocity Club of America. These speakers addressed the banquet meeting. Doctor Clarence R. Phillips, trustee of the State Medical Society, acted as toastmaster.

The scientific sessions were very well attended. A program of exceptional interest was presented by numerous specialists in the fields of public health, social welfare, education and nursing.

The officers elected for the term 1931 and 1932 are: President, Dr. C. B. Maits, Pittsburgh; first vice-president, Dr. Henry F. Smyth, Philadelphia; second vice-president, Allen Kirby, Wilkes-Barre; secretary-treasurer, Dr. John R. Conover, Pittsburgh; assistant secretary-treasurer, Arthur M. Dewees, Philadelphia; directors, Dr. T. B. Appel, Lancaster; C. B. Auel, Pittsburgh; Dr. J. T. Butz, Allentown; Harvey D. Brown, Philadelphia; T. W. Henderson, Washington; Mrs. C. H. Miner, Wilkes-Barre; J. N. Rule, Harrisburg; Miss Loretta Johnson, Philadelphia. Representative to the American Public Health Association, in Montreal, Dr. J. M. J. Raunick. J. Clarence Funk, chief of the Department's bureau of public health education, was elected executive secretary.

The next meeting of the Association will be held in Pittsburgh.

TRANSFERS—The executive secretary, C. T. Williams, recently announced that a transfer of districts has been made by engineers Glace and Moore. District engineer Glace, formerly in charge of District E, will supervise District F, including the territories covered by the counties of Northumberland, Montour, Columbia, Schuylkill, Carbon, Lehigh, Northampton, Berks, Lancaster, Lebanon and Dauphin. District engineer Moore, formerly in charge of District F, will cover District E, comprising the counties of Cambria, Bedford, Blair, Franklin, Fulton, Huntingdon, Mifflin, Juniata, Perry, Cumberland, Adams, York, Snyder and Union. Both of these men will continue to have their headquarters in the central office at Harrisburg.

EARLY DIAGNOSIS—Dr. R. H. McCutcheon, medical director of the Mont Alto Sanatorium, recently reported that in connection with the state clinic at Chambersburg, physicians of the sanatorium made tuberculin tests on approximately 300 school children in Fannett township, Franklin county. This was followed by having all those who reacted positively to this test X-rayed at the sanatorium.

In discussing this work, the Secretary of Health said, "In any group of school children of all grades, it is usual to find nearly 30 per cent who have been infected by the tubercle bacillus, and of this number from one to three per cent show a serious form of infection or disease warranting special treatment.

"This type of public health work and preventive medicine is very efficient, and it is hoped that other jurisdictions will follow the example of Franklin county by requesting this service. Ignorance of the fact that children are easily infected by the tuberculosis germ leads to serious tuberculous disease in the 'teen' age or in the early twenties. The tuberculin test discovers the situation and makes possible constructive prevention when it does the most good with the least amount of time involved for treatment."

The figures given by the Secretary of Health are eloquent indeed. It would seem that this splendid service should be applied throughout the Commonwealth. School boards, why not take advantage of this opportunity?

**Early Diagnosis is Saving These Children**

REPRESENTED PENNSYLVANIA—W. L. Stevenson, chief engineer of the Department, and Howard E. Moses, assistant engineer, represented Pennsylvania at the fifty-first annual convention of the American Waterworks Association which was held in Pittsburgh some weeks ago. Mr. Stevenson spoke on the "Allocation of Streams," while Mr. Moses was on the program three times, discussing respectively, "Effects of Acid Draining of River Water Supplies," "Effect of the Drought on the Water Supplies," "Tastes and Odors in Water. Causes and Remedies."

Reports indicate that this was the largest meeting of the Association ever held. A number of the district engineers living in the neighborhood of Pittsburgh also attended the meetings.

AGGRESSIVE DRIVE—John G. Ziegler, supervisor of school sanitation, recently announced that his office has instituted an aggressive drive for the purpose of remedying outstanding sanitary deficiencies which exist in and on a number of the school properties in the third-class districts.

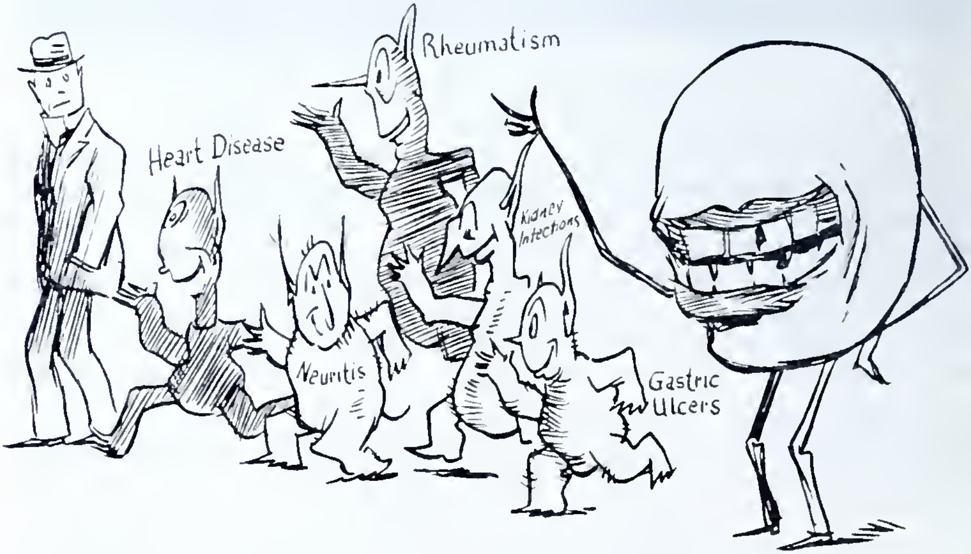
"Heretofore," said Mr. Ziegler, "much of the Department's efforts of necessity have been directed to checking up on conditions in the fourth-class districts, but it recently became evident that the sanitary requirements of the school code were not being strictly complied with in a number of the third-class districts which represent boroughs and townships with a population of 5,000 to 30,000.

"Our office has just completed a thorough check-up and has forwarded detailed instructions to the school boards of the districts where deficiencies in lighting, ventilating, heating and in toilet conditions exist. The follow-up plan already indicates that school officials are cooperating to remove most of the unsatisfactory conditions. It is therefore expected that the major portion of this remedial work will have been completed by the start of next year's school term."

It will thus be observed that housekeeping is by no means limited to the home. It is equally essential that school buildings be constructed and repaired so that the health and sanitary requirements are properly met. When it is considered how long the boys and girls are compelled to remain in school rooms compared to their own homes, the absolute wisdom of taking every reasonable step to maintain and conserve health becomes at once apparent. It is a significant sign of the times that school boards need very little urging when the Department indicates that its standards are not being observed.

NEW FILTRATION PLANT—Greensburg recently put into operation its new rapid sand filtration plant with a capacity of 4,000,000 gallons per day. Heretofore water from Indian Creek, Greensburg's source of supply, was chlorinated only.

The Department for a number of years indicated that a filtration plant was required to meet the Department's standards. The new plant is the answer. Greensburg is to be congratulated!



It Appears That Bad Teeth Can Do a Lot of Damage

DENTAL HEALTH TALKS—The bureau of public health education recently announced the preparation and syndication of dental health talks which appear in the newspapers over the signature of Dr. C. J. Hollister, chief of the Department's dental section.

Similar to the weekly health talks, which are published over the Secretary of Health's name, this material is being syndicated in Pennsylvania, is being forwarded to all State Health Directors and is also sent to allied health agencies. Hundreds of the dailies and weeklies in Pennsylvania are now using this material regularly. These talks have already attracted national attention.

INSPECTING CAMPS—The engineering bureau recently reported that it is now engaged in the annual survey of recreational camps which for the most part are located in Pike, Monroe, Wayne, Columbia, Luzerne, Susquehanna, Lackawanna and Wyoming counties.

It is estimated that the summer population concentrated in these jurisdictions, particularly in Pike, Wayne and Monroe, exceeds 20,000 largely composed of children ranging from eight to nineteen years of age.

Conferences have been held with many of the owners of these camps and representatives of the Health Department for the purpose of setting forth the sanitary requirements outlined by the engineering bureau.

**Recreational Camps are Subjected to Regular Supervision by the Department**

The district engineers personally investigated the 200 camp sites for the particular purpose of checking up on the water and milk supplies, sanitary facilities and the abatement of pollution which may affect the many lakes which are made available for bathing purposes. In addition, all out-buildings, kitchens and dining rooms were inspected in order that proper screen protection might be afforded against flies. The proper disposition of garbage for the purpose of fly control was also advised.

Supplementing this general work, weekly inspections covering the water and milk supplies were made until the close of these camps. The bureau of restaurant hygiene, as formerly, saw to it that there was a 100 per cent enforcement of the regulation calling for a medical examination and certificate of health for all food handlers connected with these organizations.

FEDERAL COOPERATION—The U. S. Weather Bureau has authorized the establishment of two standard evaporation stations on the Delaware river. From these federal stations information concerning the evaporation from the surface water in Delaware Bay and the lower Delaware river will be furnished to the Sanitary Water Board for use in connection with the salinity survey of that stream. This survey was authorized by the Act of Assembly, approved in April.

RIPE OLD AGE—The bureau of vital statistics has on file a certificate of death of one Nick Glickman, of Philadelphia, who, according to the record, was 120 years old at the time of his decease.

While present-day possibilities hardly permit the thought that the average person can attain anything like that age, nevertheless it does bring to mind the indisputable fact that literally hundreds of thousands of people are dying prematurely because of indifference to the fundamental requirements set by nature. To live fast and furiously may be good living at the time from the viewpoint of the individual, but no one can truthfully deny that it is short living. Give nature a chance at a longevity record for yourself. To say the least, conscientiously to make an attempt will be quite worthwhile.

**May Day Activities Sent a Number of Little People Like This One to the Sanatoria for Preventive Treatment**

MAY DAY—The reports which have been arriving for the past month on the activities of May Day indicate the most widespread observance of this annual health promotion feature ever held in Pennsylvania, according to Doctor Mary Riggs Noble, chief of the Department's pre-school section and state May Day chairman.

More than 100,000 pre-schoolers and prospective first-graders were examined, and advice as to correction given when needed. The follow-up clearly proves the great value of this work, many thousands of corrections having already been made through the family physician.

In addition to the field personnel, including health officers and state nurses, much of the actual May Day Health Week work was accomplished under the direction of Parent-Teacher associations. Doctor Noble gives credit to the latter organization and other welfare organizations for the most of the work that was accomplished.

AMERICAN MEDICAL ASSOCIATION EXHIBIT—The Department had an exceedingly interesting scientific exhibit at the meeting of the American Medical Association which was recently held in Philadelphia. The exhibit consisted of an illuminated photographic display of the buildings, activities and scientific and treatment phases of the new Crippled Children's Hospital, at Elizabethtown. Approximately 20,000 physicians attended the Convention. Hundreds were attracted to the Department's orthopaedic work. The exhibit was prepared by Doctor Francis S. Chambers, medical director of the Crippled Children's Hospital, and was set up and supervised by A. J. Bohl, director of health officers.

PHOTOGRAPHIC EXHIBITS—Two exhibits, in popular form, of the work being done at the Crippled Children's Hospital, in Elizabethtown, were set up in Philadelphia under the supervision of the Bureau of Public Health Education recently. One was displayed at the annual meeting of the State Children's Association held at the Benjamin Franklin Hotel, and the other at the Nurses' Institute which was held at the Philadelphia General Hospital. This exhibit was also used at the formal opening of the Kirby Memorial Health Center in Wilkes-Barre, Pa.

BUREAU OF INSPECTION ACTIVITIES—The bureau of inspection at the present time is checking up on the alleged lack of reporting of communicable diseases by various physicians in certain sections of the Commonwealth where complaints of violations of the quarantine law have been made to the Department's central office.

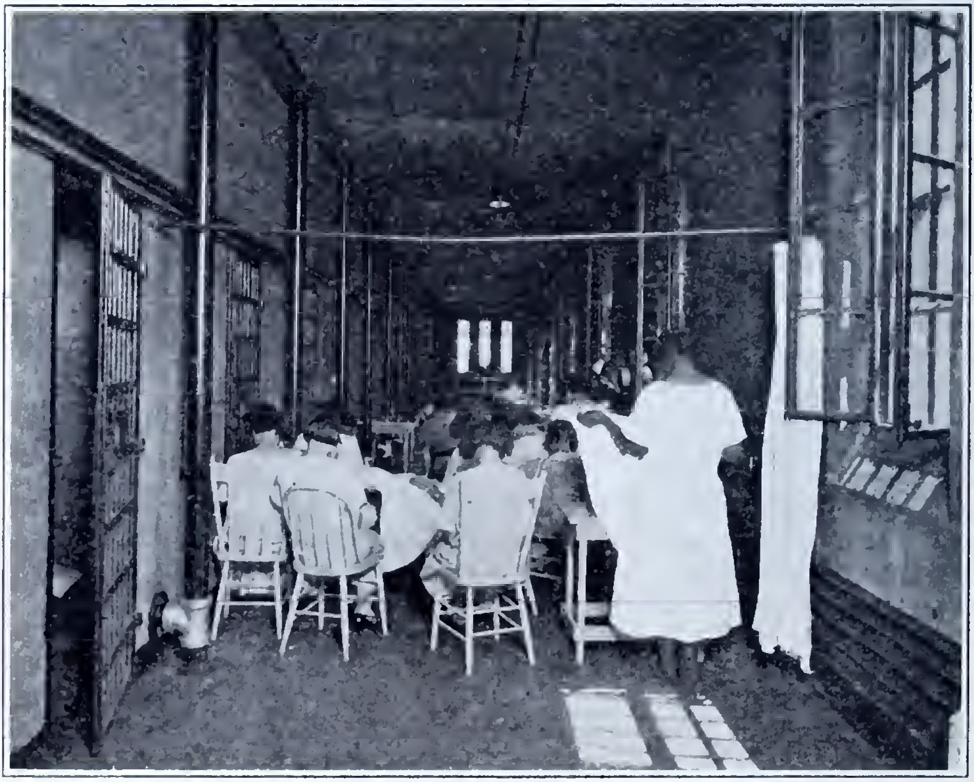
Doctor J. Bruce McCreary, deputy secretary of health, who is supervising this work, commenting on this situation, recently said, "While, by and large, the physicians in Pennsylvania adhere to the provisions of the law controlling contagious diseases, there appear to be certain definite spots where a limited number of medical men deliberately fail to comply with the law. For some unaccountable reason, a mistaken idea has become more or less prevalent in certain sections that a quarantine sign will deprive the breadwinner or other members of the family employed in gainful work, of their opportunities. Nothing is further from the truth. As a matter of fact, the quarantine regulations have been drawn for the purpose of affording maximum protection with limited inconvenience.

"It is the Department's policy to insist that the quarantine law be applied with equal force and effect by all physicians and health officers in every section of Pennsylvania. If more arrests and convictions will be required in order to attain this result, the Department will take action toward that end."

It would seem that the Department means business. It is sincerely hoped that stringent measures will not be required. How about it, doctor and health officer?

OHIO RIVER CONSERVATION COMMISSION—A meeting was held some weeks ago in Washington of the Ohio Interstate Stream Conservation Committee, of which the Secretary of Health is chairman.

The purpose was to consider uniform policies in the several states affected by the Ohio river toward safeguarding public water supplies derived from the Ohio river basin. In addition to the Pennsylvania representatives, including Doctor Appel, and chief engineer, W. L. Stevenson, who is the committee's secretary and the secretary of the board, directors of health were present from the states of Ohio, West Virginia, Kentucky, New York, Maryland, Illinois, Indiana, North Carolina, Tennessee and Virginia.



**Enforced Quarantine is No More Subject to a Bail Bond Than for Regular Quarantine**

QUARANTINE AND BOND—Doctor Edgar S. Everhart, chief of the venereal disease section, has reported that within the past month numerous unsuccessful attempts have been made by representatives of inmates of disorderly houses suffering from venereal disease to furnish bonds for the purpose of assuring the Department that treatments for these diseases would be conscientiously and regularly taken.

Commenting on this matter, Doctor Everhart stated, "There appears to be a misunderstanding on the part of numerous legal representatives in Pennsylvania with reference to the law covering the quarantine of certain types of patients suffering from venereal disease. Recent raids made by the State Police on houses of ill fame in various sections of the Commonwealth elicited the medical fact that 98 per cent of the inmates were suffering from a venereal disease in a communicable stage. Under the law, any person who is suffering from a venereal disease in a communicable stage, and who by reason of his character, habits. occupation and lack of treatment is considered to be a menace to health, is subject to quarantine. This being so, the bond factor does not enter into the question at all any more than it would were a person to be quarantined in his home or in a contagious disease hospital for diphtheria, smallpox, scarlet fever or any other communicable malady. The impression that the police power of the health department, as represented by the quarantine for venereal disease, is a criminal procedure therefore is not justified by the facts. The only interests that the Health Department has in persons of this type is to protect the public against them and incidentally to attempt to protect them against themselves."

Lawyers and other interested persons, take notice!

THE PUBLIC BATHING LAW—The 1931 legislature passed a "Public Bathing Law" which became effective September 1st of this year. Enforcement of this Act is placed in the Department of Health.

The law covers the construction, operation and supervision of bathing beaches, swimming pools, natatoriums, including Turkish and Swedish baths. Consequently, municipal bathing places, pools in schools and colleges, country clubs, Y. M. C. A.'s, athletic clubs and any other place, operated by either municipalities or private owners, would come within the jurisdiction of the Act. In fact, the only exceptions are swimming pools on private estates and the "old swimming hole" found on many of Pennsylvania's streams.

Rules and regulations to carry out the provisions of this legislation have been adopted by the Advisory Health Board and became effective September 1, 1931. It is now unlawful to operate, build or extend any pool or bathing place without a permit from the Department of Health. Application blanks may be secured from this Department upon request.

In addition to the permit, an annual license fee must be paid by all pools operated for profit. The rules and regulations cover sanitation and supervision, and quality of water. Permits will not be issued for places where water of unsatisfactory quality is used. Likewise, permits cannot be obtained where the quality of water will be affected by sewage or by industrial wastes in a stream, nor where the location of a pool may affect any public waterworks.

## Rules and Regulations of the Department of Health of the Commonwealth of Pennsylvania for the Prevention of Disease and for the Protection of the Lives and Health of the People of the Commonwealth to Carry Out the "Public Bathing Law" of June Twenty-third, One Thousand Nine Hundred and Thirty-one, Act of the General Assembly, No. 299, Providing for the Regulation of Bathing Places, Swimming Pools and Natatoriums, Approved by the Advisory Health Board on August Fifth, One Thousand Nine Hundred and Thirty-one.

## ARTICLE I

### *General Provisions*

Section 1. The provisions of these Rules and Regulations shall apply throughout the Commonwealth of Pennsylvania and shall apply equally to any person or persons, club, firm, corporation, partnership, institution, association, municipality, county, or other body and shall apply, as hereinafter qualified, to any bathing place, swimming pool or natatorium and their appurtenances to be constructed, added to, modified or operating or continuing to operate.

## ARTICLE II

### *Permits and License Fees*

Section 1. Application for the issuance of permits, as governed by Sections 5 and 6 of the Act, to construct, add to, or modify or to operate and to continue to operate any bathing place, shall be made upon application blanks which may be secured from the Department of Health, Harrisburg, Pennsylvania. The application shall be accompanied by drawings, specifications, and descriptions of the bathing place, pool or structure, source or sources of water supply, purification methods and such other pertinent information as shall be required by the Department of Health.

Each application shall be accompanied by a fee of ten dollars ($10.00) made payable to Commonwealth of Pennsylvania, Department of Revenue.

Section 2. The annual license fees as required by Section 7 of the Act for commercial pools shall be due and payable September 1st of each year and shall be paid not later than the following January 1st. Such fees made payable to Commonwealth of Pennsylvania, Department of Revenue shall be forwarded to the Department of Health. In cases where permits are issued during the year, the annual license fees shall be paid promptly upon receipt of permit.

Section 3. No bathing place shall be so located as to be within prejudicial influence of the discharge of sewage or of injurious or objectionable industrial wastes nor in such location as by its use to prejudicially affect a public water supply.

Section 4. The granting of a permit shall not be construed as relieving the applicant of compliance with the provisions of any law, the enforcement of which is vested in the Department of Forests and Waters or the Water and Power Resources Board, or in any other Department of the Commonwealth of Pennsylvania.

## ARTICLE III

### *Sanitary Regulations*

Section 1. An adequate supply of water of quality satisfactory to the Department of Health shall be supplied at all bathing places for drinking purposes and for use for swimming, bathing, Turkish, Swedish or other forms of bathing.

Section 2. No physical connection shall be made between the recirculation water supply system of a bathing place and any drinking water system.

Section 3. Adequate and proper toilet facilities for each sex shall be provided at all bathing places.

Section 4. The common use of drinking cups, towels, hair brushes or other toilet articles is prohibited.

Section 5. Bathing suits and towels furnished to bathers by the management must be thoroughly cleaned and dried each time they are used.

Section 6. Premises shall be kept in a clean and sanitary condition, well ventilated and airy and well lighted.

Section 7. Persons known to be typhoid fever carriers or known to be or suspected of being afflicted with communicable diseases, eye, ear, nose or throat infections or skin diseases shall be excluded from bathing places.

## ARTICLE IV

### *Quality of Water*

Section 1. The water used at all bathing places shall at all times have a chemical content and quality acceptable to the Department of Health, and accordingly said Department will determine what purification processes, if any, are needed to accomplish this end.

Section 2. Effective disinfection is required of the water in all swimming pools. Whenever chlorine, calcium hypochlorite or other chlorine compounds are used for swimming pool disinfection, the amount of available or excess chlorine in the water at all times when the pool is in use shall be not less than 0.1 p. p. m., nor more than 0.5 p. p. m.

Section 3. Whenever alum or sulphate of alumina is used during purification or repurification of swimming pool water, the water shall show an alkaline reaction at all times when the pool is in use.

Section 4. All water in the pool shall at times of use be bright and clear.

Section 5. Not more than two out of five samples of the water supply admitted to the swimming pool or of the water in any part of the pool, when the pool is in use, collected on the same day or not more than three out of any ten consecutive such samples collected on different dates, shall show a positive test for B. Coli in 10 c. c.

## ARTICLE V

### *Supervision*

Section 1. All bathing places shall be in charge of a capable manager or caretaker, who shall be responsible for the proper maintenance and use of the bathing place, as provided in the "Public Bathing Law" and for compliance with these Rules and Regulations, and such specific Rules as the Department may promulgate from time to time, copies of which shall be posted conspicuously at suitable places for the information of the public.

He shall be responsible for maintaining the bathing place continually in a clean, sanitary and healthful manner so that it will not constitute or be a menace to public health, promote immorality or be a public nuisance.

Section 2. Construction, appliances, and operation shall be such as to reduce to a practical minimum danger from fires, drowning and of injury to bathers from falls or collisions.

Section 3. The management of any bathing place shall make such physical, chemical and bacteriological examinations of the water as may be prescribed by the Department of Health and shall keep records of the operation and use thereof on forms satisfactory to the Department of Health and copies of such records shall be filed in the office of the said Department in accordance with the conditions of the permit.

Section 4. The foregoing Rules and Regulations shall be complied with and carried out in a manner satisfactory to the Department of Health, and said Department is hereby authorized to promulgate from time to time such specific rules and conditions of permits as may be necessary to properly enforce the "Public Bathing Law" and these Rules and Regulations.

## ARTICLE VI

### *Effective Date*

Section 1. The foregoing Rules and Regulations shall be effective on and after September 1, 1931.

THEODORE B. APPEL, M. D.,
*Secretary of Health.*

Attest:
CLINTON T. WILLIAMS,
*Secretary, Advisory Health Board.*

FEDERAL DROUGHT RELIEF—According to Henry P. Drake, supervising engineer in charge of the work, the drought relief work which was done by the Bureau of Engineering during the summer months and which was based on federal aid will be closed very shortly. The work was started on March 15th with five traveling laboratories which have been located in various parts of the Commonwealth since that time.

Nineteen counties have been covered by these laboratory units, the main work being the examination and analysis of water from private supplies and rural schools. In all, approximately 18,000 supplies have been examined.

It is understood that plans are now under way for continuing this work, though on a smaller scale and without the aid of federal funds.

The value of this type of service is incalculable and certainly has done much to reduce the power of typhoid fever to get in its deadly work in the rural communities; the only place, by the way, in which in recent years its strength was still noticeable. There is no doubt about it that typhoid fever, thanks to scientific preventive measures, is each year getting deader and deader.

MILLIONS O. K.'d—A report recently submitted by Howard E. Moses, assistant chief engineer, shows that the Sanitary Water Board from January 1, 1930, to April 1, 1931, has approved the expenditure of $842,900.00 for engineering District D, comprised of Allegheny, Washington, Greene, Fayette, Westmoreland, Indiana and Somerset counties. Of this sum, $330,300.00 has been approved for water projects and $509,600.00 for sewerage construction.

Referring to this report, the Secretary of Health remarked, "During the fifteen months covered by the report submitted by the assistant chief engineer, projects totaling $20,460,000 for completion within the period have been approved by the Sanitary Water Board. In addition, for Philadelphia during the years 1933 and 1934, projects involving an expenditure of $8,610,000 have been approved by the Board.

"These figures set forth the state-wide efforts now being made by officials in the respective districts to improve the water supplies and to eliminate sewage pollution in the streams of the Commonwealth.

"Few people realize the immensity of the problem involved in this phase of activity and the great benefits that are now being afforded through the development and construction of these sanitary facilities."

That the Sanitary Water Board has plenty to do is evidenced by the above figures. Stream pollution in Pennsylvania is a major problem. The construction represented by the projects approved will assist in the localities involved in solving it.

**Obtaining the Sample**

CRASHES THE GATE—Smallpox continues mildly to crash Pennsylvania's gate, according to a report recently submitted by Dr. J. Moore Campbell, chief of the bureau of communicable diseases. He stated that the seventh case of smallpox reported in Pennsylvania thus far this year was discovered in North Braddock.

In discussing the situation Doctor Campbell remarked, "Except for the imported cases, Pennsylvania would be absolutely free of smallpox. This fact is based upon reports covering several years wherein the origin of all cases brought to the attention of Pennsylvania authorities has been traced to jurisdictions outside the Commonwealth. So far this year Iowa has been responsible for six cases; Texas, for one; and the most recent case has been directly traced to Fulda, Ohio.

It is a significant fact that in jurisdictions where compulsory vaccination is required, smallpox is absolutely non-existent so far as native cases are concerned. Without doubt, the present unenviable smallpox record in the United States can in no wise be attributed to Pennsylvania; this, owing to the efficient control by way of compulsory vaccination of school children."

Too bad that some other jurisdictions do not take as an effective interest in smallpox control as does Pennsylvania.

TUBERCULOSIS HOSPITALS—The Secretary of Health recently announced that he had approved plans for the construction of a 100 bed tuberculosis hospital unit to be erected by the county commissioners of Delaware County at Delwood. This hospital will have a capacity of 100 adult patients. It is part of the general program looking toward additional hospitalization in the respective counties for patients suffering from the White Plague.

It was also announced that plans have been approved for the construction of a tuberculosis hospital in Berks county. This institution will be located six miles northwest of Reading, and will have a capacity of 100. Fifty beds will be set aside for adults and fifty for children.

Contracts for the erection of both these hospitals have been let by the respective county commissioners, and construction is well under way.

PAVILIONS COMPLETED—Construction engineer, Coleman B. Mark, of the Department of Property and Supplies, in charge of the Health Department work, recently indicated that the two 40-bed pavilions authorized for Mont Alto as well as the two pavilions of like capacity which were to be erected for Hamburg Sanatorium, are completed and occupied.

The Secretary of Health recently approved plans for the construction of a recreation hall at Mont Alto to replace the structure used for that purpose which was burned last year. This work is also well under way.

MEASLES—Early in the year 1931 the Department prophesied that this year would be a measles one. According to reports received, 16,000 measles cases had their inception in the last thirty days, with the southeastern portion of the Commonwealth particularly affected. Discussing the situation, the Secretary of Health advised, "It is not usually known that measles kills more young people than does the disease of scarlet fever, not to mention its impairing effects upon the hearing and eyesight. Again, a quite definite number of tuberculosis cases can always be placed to poor recovery from measles.

"It must be admitted that great difficulty confronts public health officials in their attempts to curb contagious diseases of this character. But unquestionably much of the contagion could be eliminated if parents of small children, particularly those living in sections epidemic with measles, would send their youngsters to bed upon the first indication of sneezing, coughing and reddening of the eyes. It will be easy to get them out again if the doctor's diagnosis does not confirm the very reasonable suspicion. Another major factor of control lies in the proper observance of the quarantine law. Those who have been quarantined should stay in and all others should stay out."

Parents with young children would do exceeding well to remember this advice and promptly act upon it if the necessity arises.

INSPECTION WORK—It was recently reported by R. E. Irwin, chief of the bureau of milk control, that during the last thirty day period, the nine district milk inspectors connected with that bureau had inspected more than 200 receiving stations and milk treatment plants. This survey was for the purpose of checking up on the standards set by the Department relative to the operation of plants of this character. This activity was in addition to the regular farm inspections, which as a matter of routine, are made to enforce the law relative to sanitary regulations designed to eliminate contamination in milk at the original source of supply.

BIOLOGICAL SUPPLIES—The chief of the supply section, Roy G. Miller, has reported that during the last month 3,942 packages of biological supplies were distributed throughout the Commonwealth by his section. These included diphtheria antitoxin, tetanus antitoxin, smallpox vaccine, typhoid vaccine, Shick tests, silver nitrate, toxin-antitoxin and toxoid. This material was furnished free to the various state clinics and distributing centers for the purpose of dispensing it to indigent patients.

EXHIBITS—The Children's Bureau of the U. S. Department of Labor, Washington, D. C., has a limited number of motion pictures, slides, posters, wall panels, wall maps and models which are lent free to responsible persons for special exhibitions, conferences, displays at county fairs, etc., provided the borrower agrees to pay transportation charges both ways and to be responsible for any damage to the material.

If interested, and there should be many such, get in touch with the Children's Bureau direct.

It is with heartfelt regret that the Department is compelled to announce the death of Engineer Ira F. Ziegler.

His passing is a distinct official loss to the State, the Department of Health, the Bureau of Engineering and also a profound personal loss to his host of friends and comrades.

For twenty-four years Mr. Ziegler has well and faithfully served the people of Pennsylvania in public health work. In the earlier years of the Department when there were serious outbreaks of typhoid fever, Mr. Ziegler, heedless of sparing himself, worked valiantly and ably to help find and eliminate the cause of those epidemics. His tact and good judgment over and over again brought order out of chaos in disputed health problems. He had the happy faculty of promptly winning the confidence of the public because of his high ideals and integrity.

Four years ago, because of illness, he was relieved of field duties and assigned to office work in which his knowledge of the Commonwealth and the practices and policies of the bureau of engineering almost from its very beginning made him a valuable employee.

Truly of Ira Ziegler can it be said, "Well done, thou good and faithful servant."

# PENNSYLVANIA DEPARTMENT OF HEALTH

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Secretary of Health—THEODORE B. APPEL, M. D.

Sanatoria and State Clinics:
1. Mont Alto Sanatorium—Medical Director, R. H. McCutcheon, M. D.
2. Cresson Sanatorium—Medical Director, T. H. A. Stites, M. D.
3. Hamburg Sanatorium—Medical Director, H. A. Gorman, M. D.
4. State Hospital for Crippled Children—Francis S. Chambers, M. D.

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3. Pre-School—Mary Riggs Noble, M. D.
4. Dental Hygiene—C. J. Hollister, D. D. S.

*Bureaus*

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1. Epidemiologists—Harold B. Wood, M. D.
   Samuel J. Dickey, M. D.
2. Genito-Urinary Diseases—Edgar S. Everhart, M. D.
3. Restaurant Hygiene—Howard M. Haines
4. Tuberculosis—John B. Critchfield, M. D.

Sanitary Engineering ..................................W. L. Stevenson
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2. Roadside Water Supplies—Henry P. Drake
3. Industrial Wastes—F. E. Daniels
4. Housing—H. F. Bronson
5. Nuisances—D. V. Ness

Milk Control ..............................................Ralph E. Irwin
Nursing ................................................Alice M. O'Halloran
Public Health Education ...........................J. Clarence Funk
Laboratories ......................................John L. Laird, M. D.
Drug Control ......................................James N. Lightner
Bureau of Inspection ....................J. Bruce McCreary, M. D. Acting
Vital Statistics .................................Emlyn Jones, M. D.
Finance ......................................................C. T. Williams
1. Accounts—E. J. MacNamara
2. Supplies—Roy G. Miller

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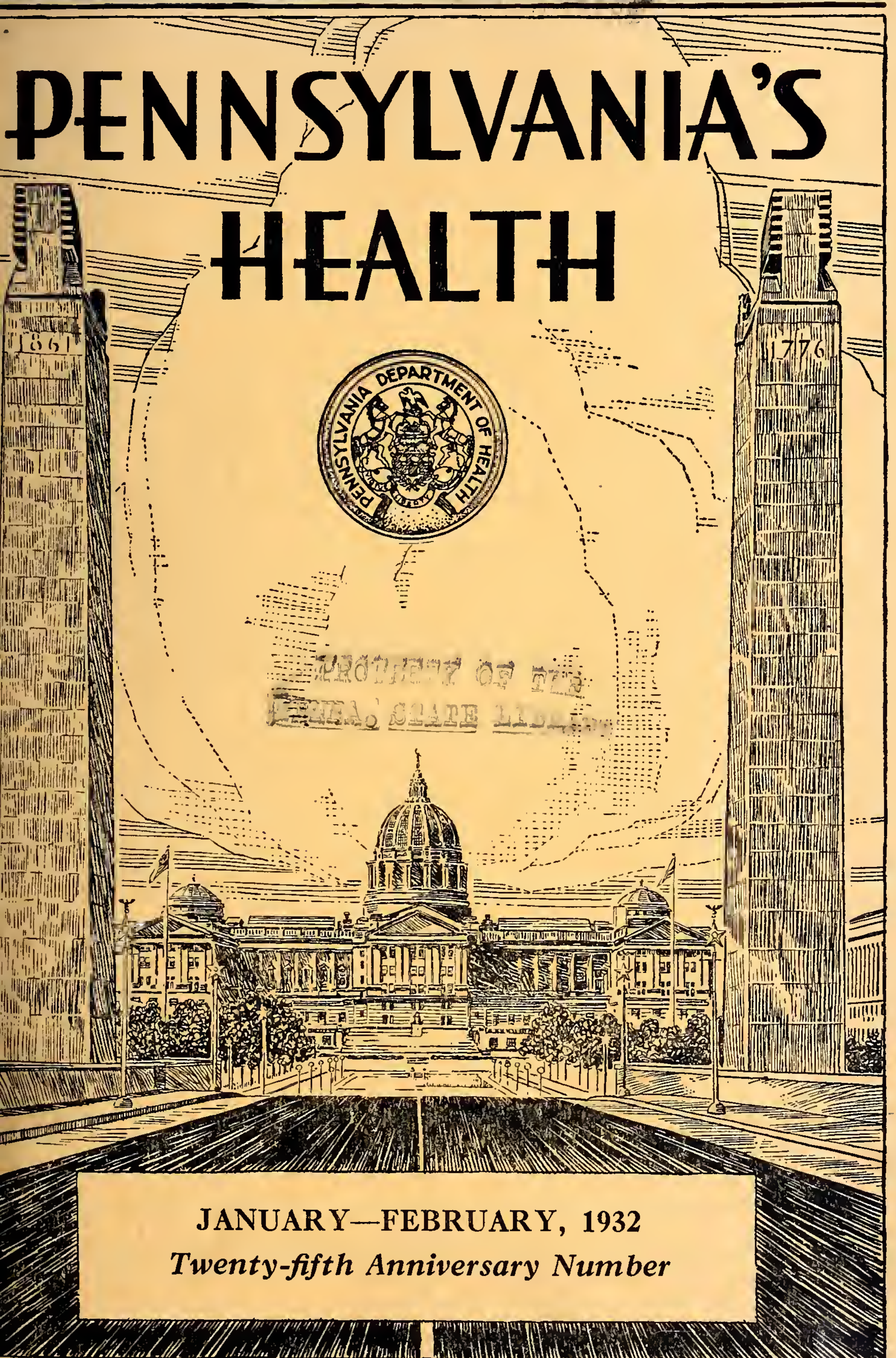

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J. CLARENCE FUNK, Editor

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THE DEPARTMENT'S SECRETARIES OF HEALTH

(1) Dr. Theodore B. Appel, the present secretary, 1927-to date; (2) Dr. Samuel G. Dixon*, 1905-1918; (3) Dr. B. Franklin Royer, acting-secretary, 1918-1919; (4) Dr. Edward Martin, 1919-1923; (5) Dr. Charles H. Miner, 1923-1927.

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*Deceased

# Editorial

## HAVE *YOU* PROGRESSED?

THIS number of *Pennsylvania's Health* marks the twenty-fifth anniversary of the Pennsylvania State Department of Health. As will be noted in the following pages, great strides have been made in medical science and in disease prevention during the past quarter century.

Miracles in the healing art and in the control of disease have literally occurred. Years have been added to the life-expectancy of the newborn infant, and many of its diseases have succumbed before the onslaughts of science.

Public sanitation during the past two score years and five has attained heights formerly merely dreamed of. Municipal cleanliness and scientific housing have further aided in the spectacular fight against the maladies heretofore associated with dirt and unspeakable tenement conditions.

Hospitals, state and city owned, have been noticeably increased and contain instruments of mercy and cure unthought of even as late as 1906.

Truly the onward march against disease and premature death has been magnificent and effective.

But at this point pause is indicated. One cannot lightly disregard the upward curves opposite cancer, diabetes and heart conditions. Nor can it be lightly ignored that fatalities from these conditions are alarmingly increasing. Where is science in these matters?

Well, the simple fact is that "All the King's horses and all the King's men" in the form of physicians, public health officials, hospitals, laboratories and research foundations are of little avail in conditions that are so wholly subjective as are these.

Except from the standpoint of pure medical research, these matters rely greatly upon the individual for their solution. Those of middle age or older will do well to ponder, when viewing the medical progress of the last twenty-five years, and take stock of the part they are or are not playing in this onward march.

For example, is one smoking excessively, eating for the sake of the palate, sleeping as little as possible, exercising not at all, and in many other ways definitely negativing much of the good that science has to offer? Or, is one disregarding the great detector of the slayers—cancer, tuberculosis, diabetes and heart afflictions, by refusing to submit annually to a physical check-up?

Yes, progress on the part of the State Health Department and in preventive and curative medical science has been scarcely short of marvelous.

But in the light of this success and because of it, it is not an impertinence but rather a very sensible and reasonable question to ask: In the art of living and life, have *you* progressed?

J. C. F.

# THEN AND NOW

## Theodore B. Appel, M. D.

*Secretary of Health*

IT has been generally recognized that any scientific discovery of wide spread application, particularly in the field of public health, requires a generation to receive full approbation by the leaders of scientific thought and another generation to be accepted without question by the laity. While this has been true in the past, it is probable that with our better channels of dissemination of knowledge, the mills of the gods grind less slowly in our present age.

The typhoid bacillus was discovered in 1880 and recognized as the direct causal agent of the disease. It was grown four years later in pure culture. Its manner of life and means of transmission were early recognized but in Pennsylvania it required the epidemic of Plymouth in 1895, studied by Lewis Taylor, to bring home to our sanitarians the relation to the disease of polluted water. During the Spanish War, in 1898, typhoid was rampant in the concentration camps and one major-general refused to allow the water from a particular well near his headquarters to be treated when the Army surgeons declared it to be polluted on the ground that he drank from it daily without ill effect.

When the Department was organized in 1905 there were possibly a dozen filtration plants in the Commonwealth, chiefly in small municipalities and for the purpose of clearing the oily water. About this time also in the specifications for a filter plant for a city of about 40,000 the plant was to guarantee water with not more than 1,000 *pathogenic* bacteria to the cubic centimeter. Of course this was a slip and the "pathogenic" was promptly eliminated. Now the state has more than 200 plants filtering and chlorinating the water supplies for more than 6,000,000 people while more than a million others are served chlorinated water from sources not requiring filtration. Safe water is now an accepted necessity—and it is fifty years since the discovery of the typhoid bacillus.

The Department of Health of Pennsylvania was organized in 1905 at a time when the basic facts of preventive medicine were well established, and its history runs parallel with the acceptance of these facts by the laity. Previously the efforts to protect the public from disease had been directed chiefly to the protection against contagious disease by quarantine, fumigation and by the development of our state-wide hospital service; the first law on our records being passed in 1770 to protect the port of Philadelphia. Later, local boards of health were organized in the larger and most progressive communities. These boards were formally recognized as integral parts of municipal government by the Constitution of 1874. In 1885, a State Board was authorized with limited advisory powers. And finally, twenty years later, our present Department was provided for by Legislative Act.

It is worth while at regular periods in any enterprise to take an account of stock, to pause in activities and in retrospect to view the progress of recent years. So, after twenty-five years of public health activity it is proper to review the history of our Department of Health. In 1906, the state death rate was 16. per 1,000 population. It is now 11.6. Typhoid was rampant both in city and on the farm. Then it caused 3,917 deaths with a rate of 54.8 per 100,000. In 1928, there were 194 deaths with a rate of 2.0. Last year, directly due to drought conditions, 247 Pennsylvanians died from typhoid, a rate of 2.6. The disease has been practically eradicated from the municipalities and is now almost entirely a rural condition. Tuberculosis, in 1906, claimed 10,780 victims, a rate of 151. In 1930, 5,779 individuals died with a rate of 59.9. Diphtheria in the early days accounted for 2,438 deaths, a rate of 34.1, and last year only 490 fatal cases occurred, a rate of 5.1. Intestinal disease in children under two, in 1910, caused 11,080 deaths a rate of 144.1; in 1929, there were 1,938 deaths, a rate of 20.3. Here again, in 1930, the drought year, there was a slight increase to 2,175 deaths with a rate of 22.5. These are some of the changes our statistics show.

The last twenty-five years however have seen a decided change in the scope of public health work. At the birth of the Department the main activities were directed to quarantine, isolation and disinfection for contagious diseases, with beginning activity by the sanitary engineers directed against the dangers of polluted water. Later, infected milk was recognized as a major factor in disease transmission and measures have been taken to counteract this danger.

Twenty-five years ago the insanitary privy was nearly always found on the farm and generally in the smaller towns. Cesspools were extensively used even in sewered cities. Today most of the built-up parts of our cities, the larger boroughs and better communities are well provided with public sewer systems for the prompt and sanitary removal by water carriage of excreta which formerly constituted a direct menace to the health of the household.

The campaign against tuberculosis was waged with vigor, and while the slogan of 1905, "No tuberculosis in Pennsylvania by 1930," has not been realized, the experience gained in that campaign has been of inestimable value in the recognition of the influence of environment upon health. Antitoxins for the treatment of various communicable diseases have come into common use. And toxin-antitoxin as a preventive for diphtheria, and typhoid-para typhoid vaccine for typhoid fever, are generally accepted. The importance of the carrier is recognized and efforts of control are being carried out.

We know more of the causation of disease and are better able to cope directly with the disease entity. But probably the most important development of the last quarter of the century is the realization of the importance of a *natural* immunity or resistance to disease; that by clean environment and proper regulation of life and regimen, including more outdoor life particularly among the children, a healthier and stronger race can be assured, with greater resistance to infection and greater powers to combat an attack of disease. This hygienic factor of environmental sanitation has immensely widened the scope of public health administration and probably marks the greatest change from the condition confronting the Department twenty-five years ago.

# TWENTY-FIVE YEARS OF PROGRESS

**A. J. Bohl**

*Supervisor of Health Officers*

Editor's Note:—On June 6th, 1931, the State Health Department completed its first quarter century of work. The following article in eloquent, and sometimes in startling form, indicates the long distance that public health has traveled in Pennsylvania in the comparatively short space of twenty-five years.

NEARLY forty years ago, in the city of Philadelphia, Dr. Charles B. Penrose, a professor in the Medical School of the University of Pennsylvania, was appointed a member of the Board of Health of Philadelphia. Being a man of great ability and professional training, he recognized the many deficiencies in the sanitary laws of the Commonwealth and the limited legal powers given to the State Board of Health. Consequently, he undertook a systematic study of public health laws. He went far afield, not confining his studies to the legislation of his own state and of the several other states of the Republic, but delving into the sanitary and health laws of foreign nations. His studies being far reaching, comprehensive and minute in detail, finally crystallized into an epitome that was quite as comprehensive as were his investigations.

This crystallization of thought and study was introduced in the form of a bill before the 1905 Legislature and became, as may be imagined, the subject of much controversy and attack. But Dr. Penrose's brother, Senator Boies Penrose, was a power in Pennsylvania. Moreover, Dr. Penrose had the backing of the medical profession, so that the bill was finally passed by the House and went to the Senate. It went to Governor Pennypacker with but two votes more than the number necessary for its passage. On April 27, 1905, with the signature of the Governor, the State Department of Health became an actuality, with its powers and duties centered in the Commissioner of Health, together with a six-member Advisory Board.

## The Start

June 6, 1905, marked the date of the actual beginning of the Department under Dr. Samuel G. Dixon as Commissioner. Drs. S. T. Davis, Adolph Koenig, Leonard Pearson, Charles B. Penrose and B. H. Warren, and Lee Masterton, a civil engineer, represented the Advisory Board as set forth in the creating law. This Board was given quasi legislative powers in the making of regulations to be enforced by the Commissioner, whose powers were likewise wide and far reaching. Here began the quarter century of effort and achievement which ended on June 6, 1930; a quarter century of strife and reward, victory and defeat, whose telling is perhaps beyond the power of any but a super-penman.

In 1905, as may well be believed, conditions affecting the public health were very much different from those that obtain today. The old Board of Health, which had administered health affairs for twenty years, had been practically without legal powers, and had no such personnel and policies as has the present Department of Health. Communicable disease control and epidemiology were non-existent over a great part of the Commonwealth, state operated tuberculosis sanatoria had not been more than dreamed of, and sewage treatment plants and water-supply works, as we of today know them, were far in the future.

Our rivers and creeks were merely convenient sewers for the use of the municipalities located on their banks. Furthermore, there existed a lack of education of the public, perhaps the greatest barrier to progress in public health, and that was the hardest obstacle to overcome. Obviously, with all these deficiencies there was much room for improvement, so improvement came, and rapidly.

Now for the first time in the history of Pennsylvania there was centralized authority in public health. The defunct Board of Health, with its six members, unsalaried, and living at various points in the state, required the concerted action of its entire personnel to accomplish anything. Moreover, the courts had decided that the secretary of that board was without authority to take executive action.

Dr. Dixon at once opened offices in Philadelphia, at the Academy of Natural Sciences, since the new capitol building under construction at Harrisburg was not ready for occupancy. There the offices remained until July, 1906, when a suite of rooms in the north wing of the Capitol was made ready for occupancy. Appointments were promptly made, so that by the end of 1906 a registrar of vital statistics, a chief medical inspector, a chief engineer and a chief of laboratories, with such clerical and technical forces as were required, were on duty. In addition to these permanent appointments, Dr. Dixon appointed a number of physicians and engineers for special work and investigations as requirements from time to time arose.

The former Board of Health had made use of a number of physicians, one in each county, as representatives of the Board. These men were called county medical inspectors, and the new Department found it wise to continue this force of men in action. Most of the old Board's force was reappointed.

During 1906 every physician in the Commonwealth was furnished with a copy of the regulations on the subject of reporting communicable disease together with a supply of morbidity report cards. Thus began the system of compulsory morbidity reporting in Pennsylvania, which state, by the way, was the pioneer one in this work. It is true that up to this time morbidity statistics had been collected in some of the larger cities but it was an utterly new experience for the majority of the physicians throughout Pennsylvania to be obliged to report their cases. Similarly, it was a unique experience for the citizen to be placed under quarantine by reason of a disease that existed within his home. It must be stated, however, that but comparatively few such quarantines were established since there was no existing personnel charged with the duty of placing and releasing quarantine. The state's health-officer system was still in the future.

The distribution of diphtheria antitoxin was started in October, 1905, and in the following month the network of distributing stations all over the state came into being. At the end of 1906 more than five hundred of these stations were in existence.

Here was improvement indeed. This new Department, with but little in the way of precedent to guide it, had formed its organization and was successfully operating within a few months.

## Laws

That this new organization might legally operate, it was necessary that it be given authority to do so, and it is at this point that a resume of some of the laws bearing upon the powers and duties of the Department may be made.

The Act creating the Department gave to the Commissioner of Health the authority to appoint such assistance as he required to carry out the provisions of the law. It further delegated to him and to the Advisory Board the power to create necessary regulations having the same force and effect as the statutory enactments.

The Act goes no further in specifying the personnel of the Department than to require that the Commissioner shall be a physician with certain qualifications, and to define the membership of the Advisory Board. No other position is therein defined, but the statute's sixth and seventh sections empower the Commissioner to appoint such assistants as are necessary to carry on the work of the Department and to delegate to them the appropriate powers and duties. He may employ sanitarians, scientists and experts to make investigations, and may purchase necessary supplies and materials. Also this wonderfully comprehensive bill covers the registration of births, deaths, marriages and diseases, and gives the Commissioner of Health general supervision over doctors and surgeons, midwives, nurses and undertakers in obtaining such registrations, and creates the entire system of vital statistics of the Commonwealth. All in all, it is doubtful if there exists anywhere a more comprehensive law, so important to the well-being, indeed the very being, of the citizens of a Commonwealth, inasmuch as it covers the complete existence of man through birth, school, employment, marriage, disease, death and burial.

The second important Act of Assembly affecting the Department was that of April 22, 1905, called the Purity of Waters Act. Strangely enough, this became a law before the Act creating the Department. In this Act the waters of the Commonwealth are defined as "all streams and springs, and all bodies of surface and of ground water, whether natural or artificial." Through its provisions all municipal, private, company or individually owned water-works constructed for the supply of water to the public must obtain a permit from the Commissioner. Going from the supply of water to its final discharge, the law requires a permit for the construction, or extension, of all sewers by persons, corporations or municipalities, and to a degree, controls the ultimate discharge of sewage into the waters of the state. Armed with this law, it has been possible for the Commissioner to pass upon all water-works installations, sources of supply and methods of treatment.

A third important statute is that of May 14, 1909. It is known as the quarantine law. This legislation, with its amendments, directly applies to the activities of the Bureau of Communicable Disease. Under its provisions the communicable diseases are specified, and the Advisory Board is empowered to remove from time to time, or to add to the list, such diseases as may demand such action. It requires the reporting of communicable disease by physicians to the health authorities, and is the statute under which the system of quarantine and quarantine placarding is conducted. The duties of undertakers and common carriers in deaths from communicable disease are also set forth in this act.

It must not be thought that quarantine was not practiced up to this time, but the large and very important Bureau of Communicable Disease, whose work affects every physician, every school child, wage earner and other person contacting with the infectious sick, had its being in these regulations.

Another law of major importance concerns compulsory vaccination, though this act antedates the Department by ten years, having been passed June 18, 1895. Through its provisions, as is well known in Pennsylvania, it is not possible for a child to enroll in school until he can exhibit a well marked vaccination scar. Contrary to a somewhat general belief, the Department of Health is not wholly responsible in the matter of compulsory vaccination, since vaccination could not legally be enforced in the case of a child who did not attend school. Here, however, the Department of Public Instruction steps upon the scene with its ultimatum that every Pennsylvania child must attend school at least seventy per cent of the school year. With these interlocking requirements, it is impossible for a citizen of the state, born within recent years, to remain unvaccinated, and the result is seen in the picture of smallpox in Pennsylvania today. In 1930, there were but .38 cases per hundred thousand of population on the basis of a population of ten million.

## The Tuberculosis Sanatoria Work Begins

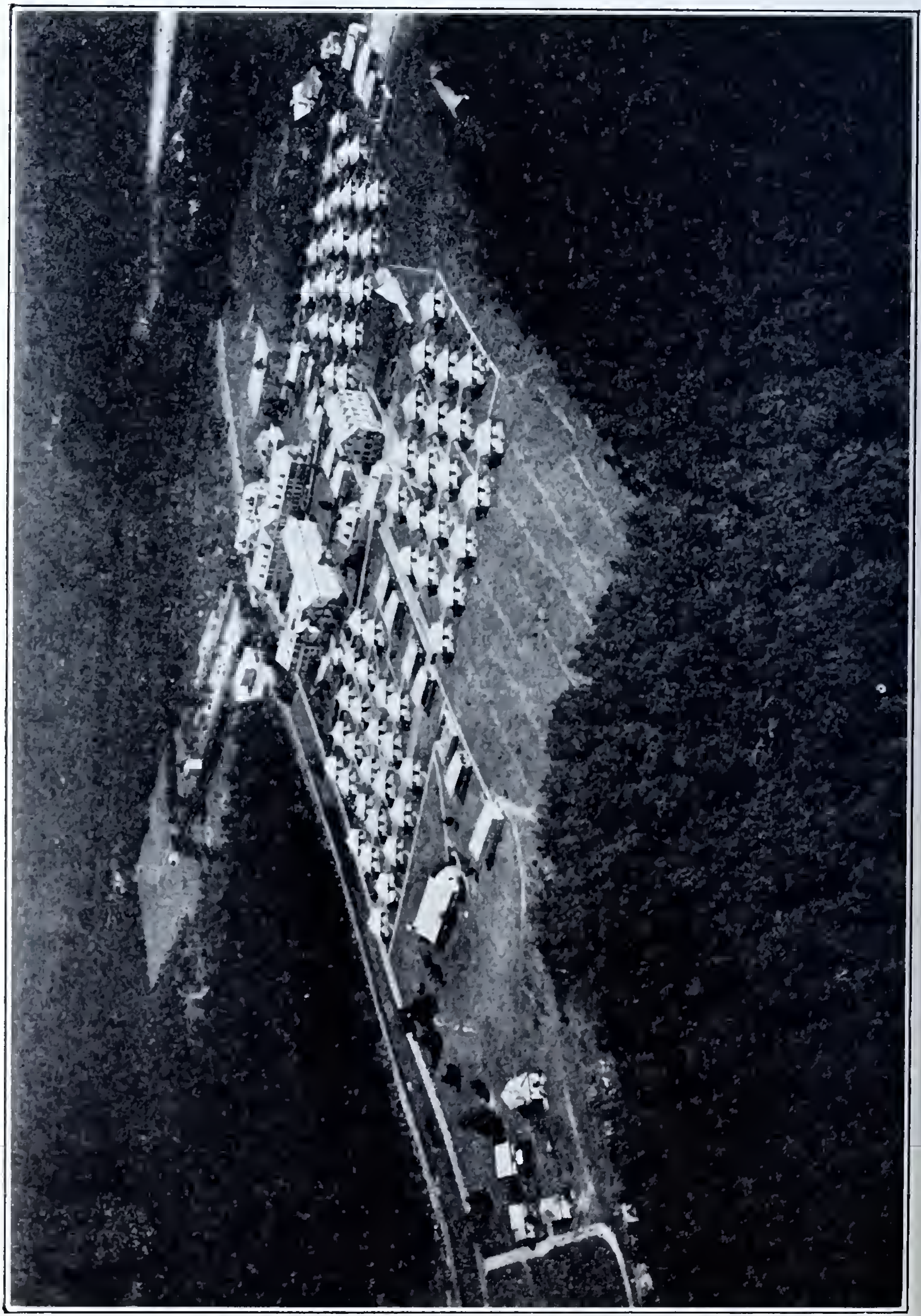
One of the most marvelous, most humanitarian, pieces of legislation that has appeared in the statutes of Pennsylvania is the Act of May 14, 1907. It created the tuberculosis sanatoria, which the Department has so efficiently constructed and operated.

Within the year, the Commissioner of Health had selected, with the assistance of the Department of Forestry, a site for the first great sanatorium at the top of South Mountain, near Mont Alto, Franklin county. On this spot, Dr. J. T. Rothrock, then Commissioner of Forestry, had followed up an idea fostered by the establishment of a camp there in 1902. In 1902 and 1903, six small cottages were built with private funds for the use of persons suffering with tuberculosis; and in 1903, with a grant of $8,000 by the legislature, six cottages, an assembly building, an office building, and a spring house were built at a site not far removed from the original one which had been abandoned, its cottages being removed to the new site. In 1904, Dr. Rothrock started a small private sanatorium about a quarter mile from this camp, on privately owned ground.

The Act of June 1, 1907, directed the Commissioner of Forestry to transfer the sanatorium site to the Department of Health, while the Act of May 15, 1907, directed the Commissioner of Health "to establish one or more sanatoria for the free care and treatment of indigent persons suffering with tuberculosis."

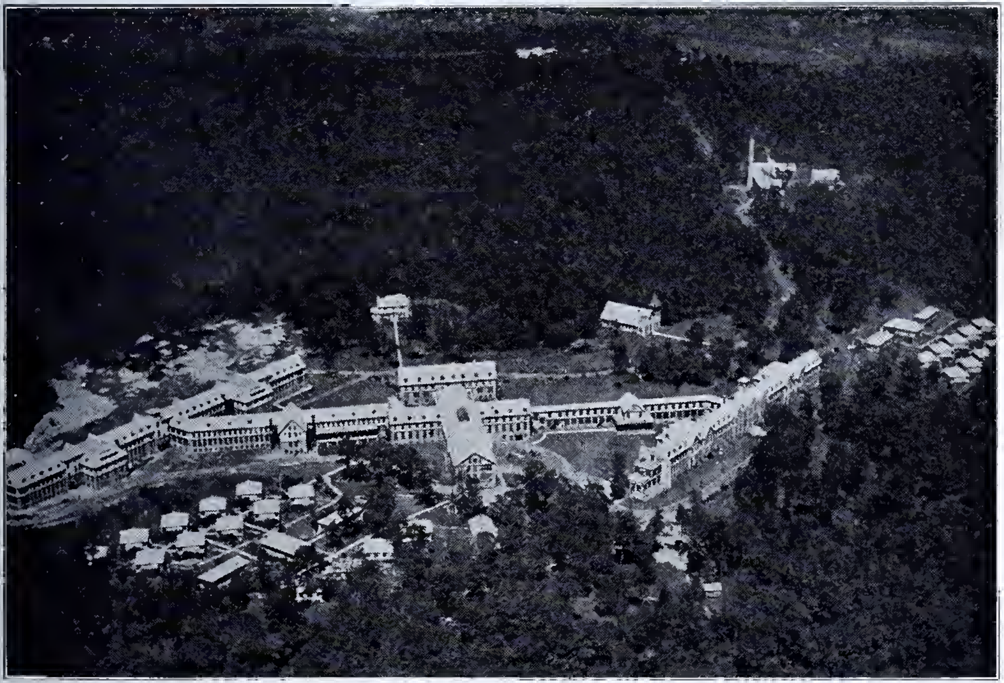
An initial appropriation of $600,000 was made by the legislature for the construction of the sanatorium, practically as it stands today, although much more than that sum has been expended in permanent construction. The plant today is valued at $873,000.00.

By 1912 the construction of the originally planned buildings had been completed, and there stood on this site an infirmary building housing about 200 bed patients, a children's hospital for 80 patients, a dispensary building with an operating room, diet kitchen, waiting rooms, examining rooms and offices, a main dining hall for ambulant patients, and seventy cottages housing eight patients each. Today, South Mountain stands a monument to health, a shrine to hygeia, a town in itself with its



library, store, laundry, post-office, printing office, its own magazine, and its many other industries leading to the comfort and well-being of its nearly one thousand patients.

This Act of Assembly did not limit the Department to the construction of South Mountain, for it plainly authorized the building of "one or more" sanatoria. So, with the completion of this, the largest, Dr. Dixon immediately began a search for another suitable site. Naturally, since the first was in the eastern part of the state, it was good judgment to locate the second one farther west. A very good location had been found but, fortunately, only tentative arrangements had been made when, on October 7, 1909, Mr. Andrew Carnegie, he of steel and iron fame, offered to Dr. Dixon a large tract of land located in the mountains not far from Cresson, Cambria county. With the possibilities of this windfall in mind, Dr. Dixon lost no time in accepting the generous offer, and in 1910 the construction of Cresson Sanatorium was under way, the first patients being received in December, 1912.



Cresson Sanatorium

Mention must be made here of the generosity of Mrs. B. F. Jones, who presented to the Department a large and comfortable cottage on the site in April, 1910. Cresson Sanatorium has a present value of $1,140,000.

By this time Pennsylvania far outranked the other states of the Union in tuberculosis sanatoria. Mont Alto, by the way, still holds the distinction of being the largest institution of its kind in the country. But Dr. Dixon was not content to pause in his fight against disease, and in 1910 purchased a site near Hamburg, Berks county, where a third sanatorium was rapidly erected. Differing from South Mountain and Cresson, which were designed for the treatment and care of ambulant cases, Hamburg was constructed with the view of assisting such cases as could not be handled under the exigencies of camp life. In other words, this was a hospital sanatorium. Its value is $1,045,000. It was opened October, 1914.

The Hamburg Sanatorium

These three large sanatoria, at which the everyday life of some three thousand people is carried on, require physical equipment equal to that of a small city. They have permanent resident staffs of physicians, supplemented by visiting staffs of specialists. They have water treatment plants and sewage disposal units, piggeries and chicken farms. They manufacture their own heat, light and power, and have milk pasteurizing plants. They have nurses training classes, in which selected patients are trained in the care of those ill with tuberculosis, and they have community recreation such as community halls for entertainments, card parties and so on, while radio is available through central radio installations wired to different parts of the sanatoria.

While these sanatoria satisfactorily performed the duty of treating and perhaps restoring to useful, happy life thousands of sufferers from pulmonary tuberculosis, there yet remained in Pennsylvania many cases of tuberculosis of a very different nature, and in an entirely different class of citizenry. These were the little children who were afflicted with what may be termed surgical tuberculosis, such as tuberculosis of the bones, or of the glands. There was no way of helping these little people through existing equipment, and our sanatorium law did not exactly cover such cases. They had to be helped, however, and on May 14, 1925, Governor Pinchot signed a bill authorizing the construction of a children's hospital to be known as the State Hospital for Crippled Children.

North Entrance State Hospital for Crippled Children at Elizabethtown

This bill did not limit the hospital to the care and treatment of surgical tuberculosis, however, but included all allied conditions. Congenital conditions, such as dislocation of the hip, injuries resulting in crippling, and any other crippling condition that has a good chance of cure may be treated in this hospital.

A beautiful location for the buildings was chosen at a point one mile west of Elizabethtown, Lancaster county, just off the Lincoln Highway, and on it was erected a magnificent structure wherein are found surgical and medical equipment of the latest design and highest grade. The hospital was formally opened in May, 1930, and was at once filled to capacity. Its value is $643,000.

Thus ends a rather lightly sketched history of the more important Acts of Assembly affecting the Department of Health, but there are others worthy of more than passing notice.

There are, for instance, such far reaching statutes as the Restaurant Hygiene Law, dated May 28, 1915, which has been superseded by an entirely new act of the Session of 1927. This law refers to the medical examination of employes of restaurants, hotels, and other public eating places, the sanitary storage of food, the cleanliness of the establishment and the proper cleansing of eating and drinking vessels and utensils.

There is too, the Housing Act of July 24, 1913, referring to the correction of insanitary and overcrowded conditions in tenement, lodging and boarding houses; and the very well known Drug Control Act of July 7, 1917, which has to do with the proper use of narcotic drugs, the registration of addicts, the dispensing of such drugs to authorized persons and the proper recording and reporting of such dispensing.

An Act of great importance is the Administrative Code, passed in 1923. This touches the Department of Health particularly through the establishment of a body known as the Sanitary Water Board. This body has as its membership the Secretary of Health, who is chairman; the Secretary of Forest and Waters, the Secretary of Fisheries, and three other members who are appointed by the Governor. In Section 2109 of the Code the Department of Health is made the enforcing agent for the Board in the stipulations for, and the issuance of, all waterworks permits and the control of sewage and other substances which pollute, or tend to pollute, the waters of the Commonwealth.

The Administrative Code in addition reiterates the powers and duties of the Department in all its bureaus, and in the Secretary of Health, excepting in the case of the Sanitary Water Board, as mentioned above, which vests the powers and duties formerly held by the Department in the Board.

## Personnel

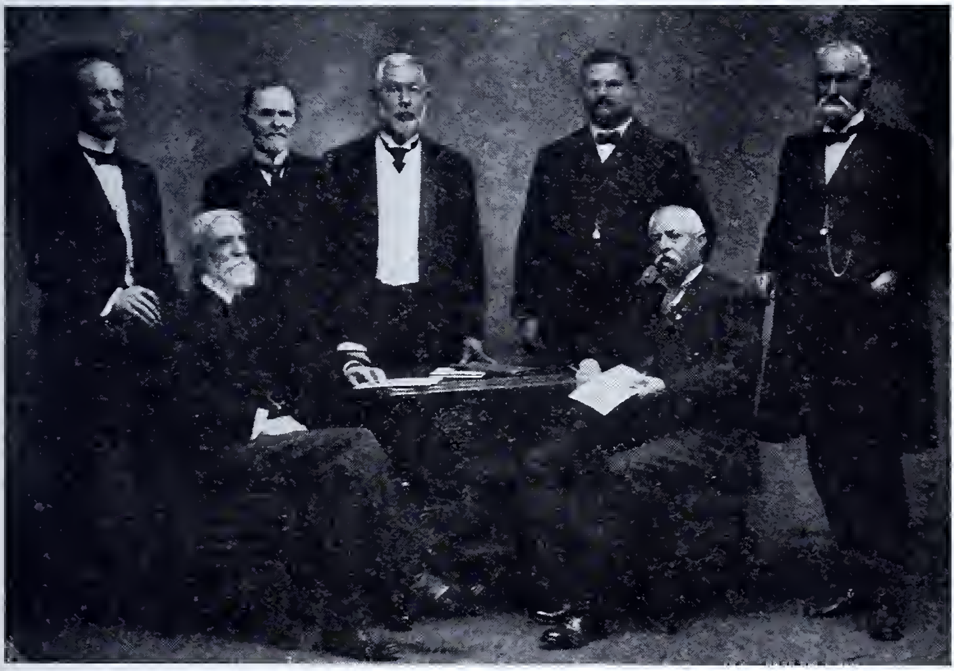
While the foregoing pages have covered in a perhaps not very comprehensive manner the history of the Department since the inception, and through its conception, they have not in any way told the tale of what the Department does, and who does it.

The Secretary of Health, as he is now known, his title having been changed from Commissioner to Secretary in 1923, is of course in general charge of the Department as a whole. His bureau is known as the Executive Bureau, in which there are, as administrators, the Secretary of Health, Deputy Secretary of Health and the Executive Secretary.

The Secretaries have been: Dr. Samuel G. Dixon, from June, 1905, until his death on February 26, 1918; Dr. Benjamin F. Royer, acting, 1918–1919; Dr. Edward Martin, 1919–1923; Dr. Charles H. Miner, 1923–1927; Dr. Theodore B. Appel, 1927 to date.

The assistants to the Commissioner: Dr. Benjamin Lee, 1905 to his death on July 12, 1913; Dr. Jos. W. Warren, 1913–1917; Dr. Thos. W. Jackson, 1917–1919; The legislature of 1919 created the position of Deputy Secretary of Health, which has been filled by the following: Dr. John D. McLean, 1919–1923; Dr. Wm. J. Turnbull, 1923–1928; Dr. J. Bruce McCreary, 1928 to date.

The Executive Secretaries: Wilbur Morse, 1905–1911; Lindley Hosford, 1911–1917; J. O. Hauser, 1917–1917; W. H. Williams, 1918–1919; James F. McCoy, 1919–1923; Clinton T. Williams, 1923 to date.



**The Old Board of Health**

The Advisory Board may properly be noted as being a part of the executive bureau, since the duties of that body are to advise the Secretary on such questions as he may place before it, and to make regulations for the prevention of disease and the performance of the work of the Department.

The original Advisory Board was composed of: Dr. S. T. Davis, who died in 1908; Dr. Adolph Koenig, Dr. Leonard Pearson, Dr. Chas. B. Penrose, Dr. B. H. Warren, Lee Masterton, C. E.

Many changes have taken place in the Board in the quarter century since 1905, and today it contains not one member of the original six. The present board is composed of: Dr. Howard C. Frontz, Dr. J. M. Wainwright, Dr. A. A. Cairns, Dr. S. R. Haythorne, C. B. Auel, M. E., Charles F. Mebus, C. E.

## Bureau of Communicable Diseases

The Bureau of Communicable Diseases, which was created in 1923 by the amalgamation of several distinct bureaus, carries on all communicable disease work, which had heretofore been the duty of the Division of Medical Inspection. It enforces directly through its health officers and county medical directors the quarantine laws in the second class townships, and supervises the boards of health in the first class townships, boroughs and third class cities.

The Division of Epidemiology, of which the chief of the bureau is the head, works in the control, prevention and eradication of the communicable diseases, which includes the quarantine and reporting of disease, and carries on the morbidity statistical work. It oversees and in a manner directs the work of the municipal boards of health, which operate under Department laws and regulations.

Through its Division of Tuberculosis Clinics, it operates the many state clinics for the diagnosis, treatment and control of tuberculosis, and arranges through these clinics all admissions to the state tuberculosis sanatoria. At the present time there are 90 of these clinics.

Its Division of Genito-Urinary Clinics operates the state clinics and cooperative clinics in the diagnosis, treatment and control of venereal disease, and enforces the laws on this subject. These clinics number 61. It may order the segregation of persons afflicted with venereal disease in institutions set aside for the purpose, when such persons become a menace to the public health through indifference or design. The chief of this division is also the deputy chief of the bureau.

The fourth division, that of Restaurant Hygiene, has supervision over sanitation in public eating and drinking places, and the medical examination and certification of their employees. The division carries on its work through the full-time health officers and its own force of inspectors, and through the city and borough boards of health.

The chief of the bureau and its division heads follow: Dr. J. Moore Campbell, 1923–1931. Division of Tuberculosis Clinics, Dr. John D. Donnelly, 1923–1924; Dr. Edgar M. Shields, 1924–1926, died November, 1926; Dr. J. B. Critchfield, 1930 to date; Division of Genito-Urinary Clinics, Dr. Edgar S. Everhart, 1923 to date; Division of Restaurant Hygiene (transferred in 1926), Howard M. Haines, 1926 to date.

## The Bureau of Vital Statistics*

The Bureau of Vital Statistics collects and permanently files records of births, marriages and deaths, and issues certified copies of certificates. It prepares statistical tables from the records which it collects.

Its chiefs have been Dr. Wilmer R. Batt, 1905–1925; Dr. R. B. Tewksbury (acting), 1925–1926; Dr. Emlyn Jones, 1927 to date.

## The Bureau of Engineering**

The Bureau of Engineering has charge of the work necessary to the issuance of permits and supervision of public and private water supplies and sewage disposal plants. Up to this time it has issued permits for 2,053 waterworks and 2,424 sewerage plants. It has the duty of acting as the direct agent of the Sanitary Water Board in the Board's work in stream pollution. It carries on the work of the elimination of nuisances and supervises sanitation in epidemics.

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*See special history of these bureaus on pages 77–81, of this issue.

**See pages 54-59.

It has a chemical laboratory which makes chemical analyses of water and industrial wastes. It operates the mobile water laboratories which make bacteriological analyses of water supplies on the main highways of the state and during epidemics. This activity was begun in 1924.

It is in charge of the law relative to the sale of bottled water, which dates from 1929; and it administers the housing law through its housing engineer.

Its chiefs have been Dr. F. Herbert Snow, C. E., 1905–1914; Charles A. Emerson, C. E., 1914–1922; W. L. Stevenson, C. E., 1922 to date.

## The Bureau of Tuberculosis Sanatoria*

The Bureau of Tuberculosis Sanatoria supervises the maintenance and operation of the three tuberculosis sanatoria which have a combined capacity of 1,670 patients, supervises the admission of patients thereto, and examines and approves plans for county tuberculosis hospitals.

Here, perhaps, is the proper place to make mention of the personnel of the great sanatoria of the department, so well and favorably known wherever tuberculosis exists and the medical profession functions.

At Mont Alto, the medical directors have been Dr. A. M. Rothrock, 1907; Dr. Fred C. Johnson, 1908; Dr. M. O. Kech, 1909-1918; Dr. F. Lyle Hazlett, 1919–1920; Dr. R. H. McCutcheon, 1921 to date. At Cresson, Dr. William G. Turnbull, 1912-1923; Dr. Thomas H. A. Stites, 1923–1931. At Hamburg, Dr. Thomas H. A. Stites, 1914–1920; Dr. Henry A. Gorman, 1920 to date. And at the Crippled Children's Hospital, Elizabethtown, Dr. Francis S. Chambers, 1931 to date. The chief of this bureau is Dr. Theodore B. Appel, the Secretary of Health.

## The Bureau of Finance

The Bureau of Finance handles the financial affairs of the Department through its Accounting Division.

Through its Division of Supplies it handles the supplies used by the Department and its various branches throughout the Commonwealth, and carries on the work of distribution of the various biological products, directly and through its many state centers.

Its chief is Clinton T. Williams, 1923 to date; chief, Division of Supplies and Biological Products, Roy G. Miller, 1919 to date.

## The Bureau of Child Health**

The Bureau of Child Health, through its pre-school section, establishes and operates the prenatal clinics and child health centers. It carries on the supervision and instruction of midwives, and gives instructions and demonstrations in the proper care of children.

In its School Division, the work of the medical examination of children in the fourth class school districts is carried on. It enforces sanitary requirements in schools and conducts the sanitary inspection of thousands of school buildings. It administers the vaccination law, and supervises the medical and sanitary inspection of schools in the second and third class school districts.

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*See separate articles on pages 65–74, respectively, of this number.

**See pages 35-41.

Its Dental Section demonstrates and teaches the care of the teeth. It also endeavors to have local communities finance dental work in schools.

The chief of the bureau is the Deputy Secretary of Health, Dr. J. Bruce McCreary, who is also chief of the school division, 1923 to date. Dr. Mary Riggs Noble is chief of the pre-school section, 1921 to date, and Dr. C. J. Hollister, chief of the dental section, 1921 to date.

**The Baby Clinic Looks After the Younger Generation**

## The Bureau of Nursing*

The Bureau of Nursing directs a staff of public health nurses in the field. Incidentally, it is the largest state group of its kind in the nation. Its activities extend to tuberculosis, venereal disease control and prenatal work, child health, follow-up of communicable disease quarantine, medical social service, toxin-antitoxin campaigns, and special work in epidemics and disasters. A number of health officer districts in the bureau of communicable diseases are covered by public health nurses. Before the creation of this bureau, public health nursing in clinics had been carried on by Miss O'Halloran, then chief nurse, and a force of dispensary nurses. Its chief was Alice M. O'Halloran, R. N., 1920 to 1932. Acting chief Anna T. Gaynor, R. N. to date.

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*See separate article on pages 54-59, respectively, of this number.

## The Bureau of Drug Control

The Bureau of Drug Control is in charge of the regulations, possession, administration and prescription of certain narcotic drugs, the treatment and care of victims of the drug habit, and the enforcement of laws providing for the control of narcotics.

Its chiefs have been Dr. Thomas S. Blair, 1918–1923; James N. Lightner, 1923 to 1931.

A Drug Addict's Outfit

## The Bureau of Public Health Education

The Bureau of Public Health Education publishes the Department's bi-monthly journal, "*Pennsylvania's Health*," prepares and issues weekly health and dental letters, is the contact between the Department and the public on health educational matters, and takes care of the general publicity of the Department. It also has the duty of arranging lectures and motion picture exhibits and provides material for exhibition before medical and allied societies. Its chief is J. Clarence Funk, 1928 to date.

## The Bureau of Laboratories*

One of the early divisions established was the Division of Laboratories, now known as the Bureau of Laboratories. This bureau examines specimens of sputum, blood, fluids, pathological growths, diphtheria cultures, feces, urine, and smear preparations. Wassermann and Widal tests are made, standardization tests are performed on diphtheria and tetanus antitoxins, toxin-antitoxin and smallpox virus. Water and milk bacteriological analyses are made, besides other routine procedures.

This bureau, then a division, had as its first chief Dr. Herbert Fox, who was in charge from 1905 until 1911, when he was succeeded by Dr. D. H. Bergey. Dr. Bergey after a short tenure of office gave way to Dr. S. H. Gilliland who was replaced by Dr. J. B. Rucker, Jr., in 1912. Dr. Rucker remained until 1919, when Dr. John L. Laird became head of the bureau and has remained in charge up to the present date.

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*See separate article on pages 75–77, of this number.

## Bureau of Milk Control*

In 1919, the then Division of Engineering started surveys of municipal milk supplies and promoted the adoption of milk ordinances and the appointment of local milk inspectors. On May 2, 1929, an Act of Assembly was signed and shortly thereafter a new bureau of the Department came into existence, that of Milk Control. Ralph E. Irwin, formerly chief of the Milk Division, was placed in charge of the bureau.

The law requires that a permit be obtained by every distributor of milk. Thus every dairy or creamery must obtain a permit in order to have its own employes distribute milk to the consumers. A private distributor, who buys his milk already bottled and capped from the dairy, need not have a permit. The distributor is required to have the dairy farms, from whence his supply comes, inspected by an inspector who is certified by the bureau, at his own expense. These inspectors receive no pay from the Department. The distributor must also have approved milk-handling machinery.

The Milk Bureau is Well Equipped

## The Bureau of Field Inspection

Another new bureau is that of Field Inspection, which was organized October, 1927. This bureau is charged with the duty of making inspections and investigations for all other divisions of the Department when required, primarily in cases where legal action is, or may be, indicated in order to enforce compliance with law. All prosecutions brought by the Department are conducted through this bureau. Chiefs of the Bureau, James Duffy, 1927–1931; George A. Strine 1931 to date.

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*See special article on page 60-64, of this issue.

## Other Bodies

There are bodies which operate as a part of the Department, yet are more or less disassociated with it. One of these is the Sanitary Water Board, which is composed of the Secretary of Health, chairman; the Secretary of Forests and Waters, the Commissioner of Fisheries and two members appointed by the Governor. The Board is charged with the reclamation and preservation of the purity of the waters of the state, and the administration of the laws prohibiting the pollution of state waters. Its activities extend to the elimination of pollution affecting not only the public health, but that of animals and aquatic life, and the use of state waters for recreational purposes.

There exists, under the Board, a coordination of the several laws affecting stream pollution which were, prior to its birth, administered by several departments of the state government.

A second body is the State Anatomical Board, which is composed of the professors of anatomy and surgery, and the demonstrators of anatomy and surgery in the medical and dental colleges and schools of the Commonwealth. It directs the distribution of unclaimed human bodies among the several schools where they are used in the promotion of medical science.

## Intimate History

To one who has spent the major portion of his life in the service of the Department, the methods and personnel of the earlier days seem very near and dear. One can remember faces, names, and particular bits of work by this and that one. This history would not be complete without some mention of these pioneer chiefs of divisions.

For example, there was the old Division of Medical Inspection, which carried on epidemiology and out of which the Bureau of Communicable Diseases grew. This division began with Dr. Fred C. Johnson in charge, in 1905, and so continued until 1908, when Dr. A. B. Moulton took over the reins. He resigned in 1910, and Dr. Benjamin F. Royer took his place and kept it until 1918. This is the same Doctor Royer who was acting commissioner in 1918–1919, and who is now Medical Director of the National Society for the Prevention of Blindness. After him came Dr. Howard L. Hull, who is now located in the state of Washington; and then, in 1921, it was headed by Dr. J. Moore Campbell. Dr. Campbell held the office until 1923, when the division was made the nucleus of the Bureau of Communicable Diseases under his direction.

Another old division was that of Tuberculosis Dispensaries. In the beginning of things Dr. Dixon's policy in the matter of tuberculosis included not only treatment but the provision of milk and eggs to registered tuberculosis patients. Those who attended the clinics received milk and egg tickets, good for a specified amount of each, daily or weekly, as needed, which were later redeemed by the dealer for cash. The chiefs of the division began with Dr. Thomas H. A. Stites, now in charge at Cresson, from 1907 to 1914; then Dr. Karl Schaffle, now in the Government health service, from 1914 to 1920; Dr. F. F. D. Reckord, a Harrisburg physician, for part of 1920; Dr. A. P. Francine, 1920 to 1922, and Dr. John D. Donnelly, from 1922 to 1923. At this time the Bureau of Communicable Diseases took over the work, making it a sub-division under the name of Tuberculosis Clinics. Dr. Donnelly continued until 1924, when Dr. Edgar M. Shields was appointed. Dr. Shields, a Pennsylvanian by birth, spent a number of years in the interior of China, as a medical missionary, and had a fund of anecdote concerning his life there. Dr. Shields died, after an illness following an operation, in November, 1926, and was succeeded by Dr. John B. Critchfield, who is at the helm at the present time.

One of the most picturesque bodies of men in the department was the Bureau of Field Inspection, which existed from 1907 until July, 1917, when its money allotment was dropped from the general appropriation bill actually over night by Governor Brumbaugh. I can well remember the flurry that ensued the next day when the news was broken by Dr. Dixon to Moses K. Ely, then Chief of the Bureau, and now Chief Clerk to Dr. F. H. Snow, of the Public Service Commission. Everybody was busy, very busy, for a telegram had to be sent at once to every member of the force, and there were about fifty-five of them scattered all over Pennsylvania. To this force of men was given the duty of making a house to house inspection of, perhaps, the entire territory of a particular watershed. Every house, every barn, every building on the watershed was visited, inspected and its description written up, with a detailed story, should it be the source of a stream pollution.

**A 100% Clean Kitchen**

This inspection was promptly followed up with the service of abatement orders upon the owner or occupant of the property, and re-inspection after re-inspection until a satisfactory abatement was made. If the owner proved recalcitrant, it was often necessary to bring prosecution, but usually the Department had its way and the pollution was removed. This work was performed under the provisions of the Purity Water Act.

There was also the old Division of Public Service, which was the predecessor of the Division of Restaurant Hygiene. The division began under the direction of Dr. George K. Strode, in 1915, who resigned in August, 1916. He was succeeded by Dr. T. W. Jackson, who became assistant to the Commissioner in 1917, and whose place was taken by Edward Stuart. Mr. Stuart resigned in October, 1917, and William Wyant became acting chief until April, 1918. At this time the division was made a part of the Division of Engineering, and was put in charge of D. V. Ness until November, 1918. The work of the division was carried on by the Engineering Division until it was transferred to the Bureau of Communicable Disease in May, 1926.

Mention must be made of the Bureau of Housing which, under John Molitor, a Philadelphia architect, who later was chief architect for the Philadelphia Sesqui-Centennial, began its work in February, 1915. This bureau became a part of the Engineering Division in 1923.

One of the original divisions, which has ceased to exist long since, was that of Antitoxin and Vaccines. Henry W. Pierson, of Philadelphia, was placed in charge of the division back in 1905, and remained until his resignation in 1913. He was followed by Dr. J. Moore Campbell, on March 15, 1914, who was transferred from duties as pathologist in the Division of Laboratories in Philadelphia. Dr. Campbell remained in charge of this work until January, 1919, when he became an assistant in the Division of Medical Inspection. At this time the work of the division was added to the Division of Supplies.

Back in 1905, the Division of Purchasing, later the Division of Accounting and Purchasing, was placed in the hands of E. I. Simpson. Mr. Simpson resigned in 1919, and the division was given to Clinton T. Williams, who is now the executive secretary. Departmental purchasing today has been done away with, this duty being made a part of the work of the State Department of Property and Supplies. While it was still in the hands of the Department of Health it was a very important duty, since all the tremendous bulk of supplies for the sanatoria was purchased through the division.

Other old divisions were those of General Inspection, under the direction of Charles W. Webbert, whō was in charge from 1909 until 1921. Its duty was to keep in touch with the Department's force of health officers which, under the hourly pay system then in vogue, numbered something over 700 men. This was discontinued in 1923.

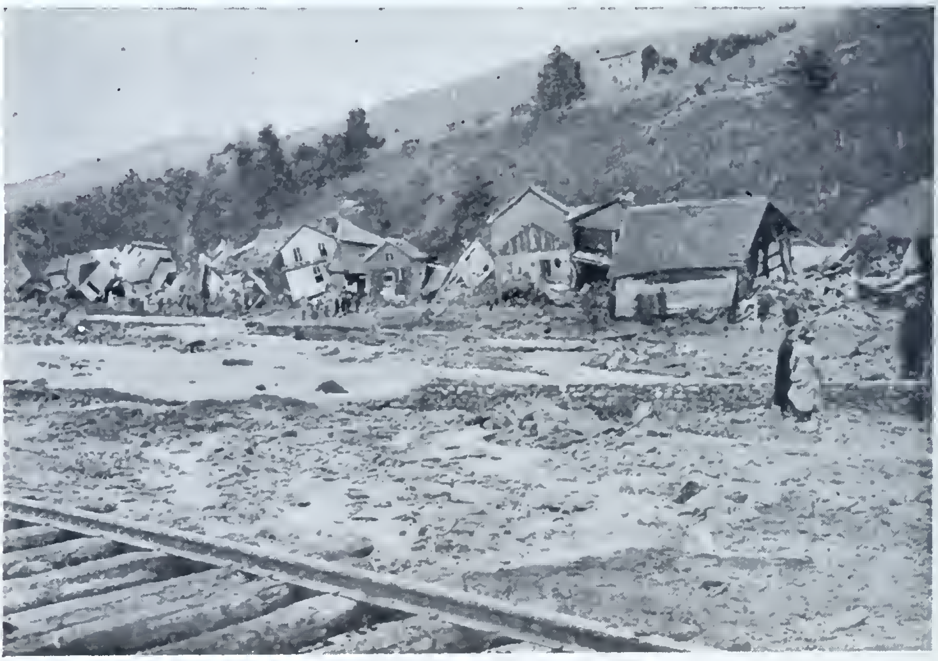
Another was the Genito-Urinary Division which was a separate division under direction of Dr. S. Leon Gans from February, 1919, until 1923, when it became a part of the Bureau of Communicable Diseases.

The old Division of Child Hygiene, which functioned as a separate body until it was absorbed by the Division of School Health, in 1923, was headed by Dr. Dorothy Child, 1919–1920, Dr. Ellen C. Potter, who was appointed Secretary of Welfare under Governor Pinchot during his first term, 1920, until October, 1921, and Dr. Mary Riggs Noble, who is the present chief of the division.

There was also a Division of School Health, which started under Commissioner Edward Martin with Dr. Wm. J. Crookston in charge. He was succeeded by Dr. George K. Strode, and he in turn by Dr. John J. Mullowney. This work was also given to the Division of Child Health in 1923.

## The Austin Flood

It does not often happen in Pennsylvania that disasters of great magnitude occur. We have fires, of course, and mine disasters and train wrecks, but it is only occasionally that the forces of nature break loose from all restraint and wholly overwhelm mankind. Such a cataclysm occurred twenty years ago when, at Austin, Potter County, a dam across Freeman Run gave way. Shortly after two o'clock in the afternoon of Saturday, September 30, 1911, the people of Austin, numbering perhaps three thousand, were going about their business as usual, when this awful volume of water, some two hundred million gallons, picked up some 150,000 cords of hemlock logs which were stored below the dam and hurled them, crashing and battering through all obstacles, upon the town.



Ruined by the Raging Waters

All means of communication with the outside world had been destroyed, so that it was not until six o'clock in the evening that word of the flood reached Doctor Dixon at his Montgomery county home, but he lost no time in getting in touch with the offices at Harrisburg, and by eleven that night the train leaving for Keating Summit carried a number of doctors, nurses and engineers. Others were picked up enroute, so that on arrival next morning 13 doctors, 12 nurses and 5 engineers detrained. In the meantime our county medical inspectors and health officers from the nearby counties had lost no time in reaching the scene.

Prompt action was necessary, since food, clothing and housing were immediate necessities. The Department's purchasing agent at Philadelphia was instructed to order foodstuffs, and the National Guard at Harrisburg promptly supplied tents, food, cooking utensils and army overcoats.

The force of the flood was incalculable. The water had smashed the center of the town to matchwood, destroying homes, industries and places of business, washing out bridges, and reaching the village of Costello, some three miles south, destroyed quite a large portion of that town. There was nothing left of Austin but a fringe of houses at each side above the water line of the flood. The water and lighting systems had been destroyed.

Within a short time the Department's forces, together with several troops of State Constabulary and a number of men from the State Highway Department, had organized relief work under way. Laborers, materials and tools were brought in until at one time there were five hundred men on the Department's payroll. A dead line was established in order to keep out curiosity impelled onlookers.

One of the first duties was the search for bodies, and from day to day more men were engaged in this work until within a short time nearly a thousand men were on duty, with about fifteen hundred searching on one particular day. Wreckage was removed, accumulations of earth upturned and nothing left undone to clear up the tremendous piles of debris. A temporary lighting plant was installed in a box-car used as a power house, and arc lights were strung so that it was possible to work a night force at selected points. Gas lines were extended too, water supply lines put into use, a hospital tent erected, and a morgue established.

The loss of life was conjectured to be well up into the hundreds, but a census of the inhabitants of the town was taken and it was finally determined that seventy-seven persons were missing. The total number of bodies recovered was seventy-three, so that, if the census was correct, but four bodies remained undiscovered. All but four male and two female bodies were identified, some of them by such slight clues as dental work, rings and other jewelry, and color of hair, for the battering flood had so crushed and mangled many of them that they were otherwise unrecognizable.

The Department continued in charge of the work of reconstruction and rehabilitation until October 15th, when the buildings that had been erected and supplies at hand were turned over to the Burgess and council and the Austin Relief Association, and our forces returned to their routine duties. Dr. Dixon had in the field twenty physicans and health officers, fourteen nurses, five engineers, four other members of the Engineering Division and nine sanitary inspectors.

## Fighting Infantile Paralysis

Back in 1907, physicians viewed with alarm a small epidemic of infantile paralysis, or anterior poliomyelitis. It was practically new to Pennsylvania. The following years had more or less of it, and in 1910 the Advisory Board made it a reportable condition. In the latter part of that year an epidemic of something over a thousand cases developed. The disease was becoming a real menace to Pennsylvania. From 1911 to 1915 no severe outbreaks occurred, but it was always present. So we come to the year 1916.

In New York City, and in New Jersey, a severe outbreak occurred during the mid-months of the year. People became hysterical with fear, and did what might have been expected of them; they stampeded, went away, anywhere, just so they could get their children away from the terrible scourge.

It became evident that many of these people were entering Pennsylvania, and the people of Pennsylvania became alarmed. The public began to demand that something be done to prevent the spread of the disease, the press took up the fight, and the demand became insistent.

Dr. Dixon called together the Advisory Board and had a regulation passed providing for the quarantine of the entire state. It was realized that there were enormous difficulties, that it meant the guarding of a thousand miles of border line, but within two days men were on duty, and these forces were added to from time to time until nearly a thousand men were on the Department's payroll.

Our officers were instructed to arrest anyone entering who was suspected of coming from an infected area. A system of certificates was adopted, and no child from an infected district could hope to enter, since every child had to have a certificate. These regulations went into effect August 7th.

From Hancock, New York, to Chester, Pennsylvania, practically every bridge, every ferry, had its day and night guards, and everyone crossing was stopped and interrogated. Three divisions were made of the border, with a supervisor in charge of each going from one point to another visiting the men at the bridges.

At Philadelphia, especially on Sunday evening, as many as thirty-five men were on duty at the ferry slips where the ocean resort visitors returned to Pennsylvania. Trains from New York and Trenton were entered on the Jersey side and inspected enroute. Similar quarantines were enforced at Pittsburgh and other western railroad points, although there was not much chance of infection from points west of Pennsylvania.

In addition to the inspection of human beings, railroad coaches from infected districts were disinfected, and household goods coming into the state had to have a clean bill of health. Churches and schools were closed at some places in the state, while picnics, excursions and moving pictures were prohibited to persons under sixteen years of age.

Pennsylvania, while it suffered an unusual number of cases of the disease, had no such outbreak as occurred in other places. It cannot be proven that quarantine was the cause of this, yet it is reasonable to suppose that such was the case. In our Commonwealth there were 2,075 cases, with 1,983 of them in the last seven months of the year, the epidemic months.

The city of Philadelphia had 1,000 cases, more than half the total incidence during the epidemic, but Philadelphia's rate was but one case to each 15,000 population whereas Newark, New Jersey, had 49 for every 15,000 during the same period. New York City had about 27, and Hoboken about 15, per 15,000.

This, then, is an example of the strenuous times that the older members of the Department forces remember so well. Here, in about seven weeks, from August 7th to October 1st, an almost unparalleled quarantine had been established.

## The Influenza Epidemic

Nineteen eighteen was a "date" year, one of those whose memory lingers on and on almost forever, for it was the year of the great influenza epidemic, the year of "Spanish Flu."

During the late summer, "flu" had appeared in the Middle Western and New England states in militia camps, from which reports by army physicians indicated that it was extremely communicable with tremendous mortality, and was practically uncontrollable.

In September it made its first appearance in Pennsylvania, in Philadelphia, and before the end of that month the counties of Indiana and Jefferson were calling for help from the Department. Dr. Royer, who was acting Commissioner, lost no time in sending aid, and he did more than that; he very wisely anticipated the terrible scourge that was shortly to descend upon the Commonwealth. Letters and telegrams were forwarded to health officials all over the state urging immediate survey of hospital facilities, and on October 3rd, was issued the memorable order closing all places of entertainment, theatres and moving pictures, dance halls, saloons, and prohibiting all meetings of every description. A few days later came the order to stop all sale of liquor except through prescription.

Early in October there were 150,000 cases of the disease in the state; Philadelphia, Schuylkill, Chester, Luzerne and Delaware counties were simply overwhelmed with it. State physicians and nurses were sent to the afflicted districts and the utmost effort was put forth to obtain the service of more nurses. Many, a great many, responded to the call, but there were never, throughout the course of the epidemic, enough to fill the needs of the stricken communities. Similarly, volunteer physicians were advertised for, salaries and expenses offered, the Red Cross began to send aid and the Council of National Defence was appealed to for help in securing personnel.

The shortage of physicians was terrific, for there was not only a tremendously increased demand for their services, but an actual numerical shortage due to the absence of so many physicians on war service abroad and in the training camps of America.

The need for hospitalization became so great that it was necessary to use tents, and the Adjutant-General's Department furnished tentage, cots, blankets and mess equipment, and furthermore, sent enlisted men to aid in the fight.

By the middle of October the disease had invaded in some degree every county in the state, with Philadelphia city, and parts of Bucks, Chester, Montgomery, Delaware, Northumberland, Schuylkill, Cambria, Indiana and Jefferson counties as high points. Pittsburgh, Erie, Allentown and Johnstown were later stricken very seriously.

Although influenza was not a reportable disease, yet the field men of the Department immediately began to collect reports of deaths, and these were sent to Harrisburg daily. Graphs were plotted, and these graphs show that during the months of October and November there were 50,795 deaths from influenza and pneumonia, and for December, 8,723 deaths, a total of 59,518 deaths from these causes up to the end of the year, by which time the crest of the epidemic had passed.

There had been 293 emergency hospitals functioning with the aid of 747 physicians, 31 medical students, 851 enlisted men, 125 U. S. Army physicians, 881 registered nurses and 2,777 volunteer nurses, into which

20,100 patients had been admitted. They were in tents, churches, schools, lodge halls, and in indeed in almost any sort of building that was in any way suitable. Deaths occurred in these hospitals to the number of 3,914.

While the cost of this epidemic to the Commonwealth is incalculable, yet some faint idea may be gathered by reference to the fact that $350,000 was expended by the Department alone for physicians, nurses, and various materials and supplies.

## The Semi-Centenary at Gettysburg

Back in 1863, as everybody knows, our country was rent and torn by that great fratricidal struggle called the Civil War. Certainly it is fitting and proper that this anniversary should be recognized, but a half century is a long time, and the survivors of the war were aged men when, in 1913, preparation was made for a Semi-Centenary at Gettysburg, the site of the war's greatest battle.

**A Department Field Hospital at Gettysburg**

Gettysburg is a small town, comfortable and pleasant, but without the facilities necessary to maintain thousands of visitors for a period of two weeks. Additional water supplies had to be provided, the sewer system augmented and plans made for the medical care of such of these old soldiers as might require it.

During April and May of 1913, the Department made a survey of the watershed from which the public supply was taken, and an inspection of every well and spring for miles around the town. Samples were taken and tested for bacteria, and improvements ordered where necessary. An emergency hospital was erected requiring 37 tents and flies, also a number of buildings. Two ambulances were provided and hospital equipment placed in four railroad cars.

The engineering division hurriedly constructed sewage treatment plants and chlorination treatment for the augmented water supply, and built six comfort stations and a number of latrines.

The camp opened on June 25th and closed on July 4th. During this ten-day period there were treated in the hospital, 1,009 cases, 406 of them being bed cases. There were no deaths in camp, but some of these aged men did succumb to disease or to the over-exertion due to their camp life and long journey to the reunion. None but minor conditions were treated at the camp, all the serious cases being transferred to the nearest available hospitals. The Department had on duty a personnel numbering 27 doctors, 34 nurses, 5 engineers, 4 laboratory men and a number of others.

The population of Gettysburg and the surrounding territory numbered about 7,600, while during this camp the daily population was something around 100,000, a great many of them aged and infirm men. It is a distinctly pleasant memory to look back upon this camp and realize the important part played by our forces in making it a safe and comfortable place of residence for these old soldiers.

## Foreign Health Officers' Visit

An interesting incident is brought to mind when one thinks of the visit of a number of foreign health officials to the Department in October, 1923. These gentlemen were from England, France, Russia, Belgium, Greece, Brazil, San Salvador and Scotland, and were sent to visit various United States health departments by the League of Nations. Charts, graphs, copies of forms used, and outlines of methods of procedure were prepared for each visitor and a series of talks by division heads were given. There were also numerous tours of inspection.

## The Summer Camps

Doctor Edward Martin, when he became Commissioner in 1919, inaugurated something that was quite a novelty to the Department—the annual camp of instruction at Mont Alto. This was a real camp under canvas, so far as sleeping and sanitary arrangements were concerned, although meals were served in the sanatorium dining rooms.

Our county medical directors, health officers, and nurses and local board of health officials were invited to attend these camps, where lectures were given on various phases of public health by both Department and invited lecturers, physicians, and so on. There were amusements provided, of course, games, dancing and moving pictures. In retrospect, these camps seem to have been of real and intense value in adding to the knowledge of the people attending them. Certainly they prompted better understanding of problems and more intimate acquaintance between the Department and the many local officials who attended. These camps were continued through Doctor Martin's term of office, in 1919, 1920, 1921 and 1922, and by Dr. Charles H. Miner in the years 1924 and 1925.

## The Fight Against Typhoid Fever

Looking over the whole medical history of Pennsylvania it will be noted that one preeminent disease exists, one that is always most interesting to study. That one is typhoid fever. And a departmental history would be woefully incomplete without some reference to it.

It is rather a fact that we do not have epidemics of typhoid today, but there was a time when it was rampant in the state, when large numbers of people were stricken by it, and the largest of these had its origin right here in Harrisburg, in 1916, whence it spread all over central Pennsylvania.

In August, 1916, the chief medical inspector sent a physician to Lykens and Williamstown, in upper Dauphin county, to look after 16 cases of typhoid. It was found that all had the same water supply, but that there were too few cases to make water borne infection likely. One other common possibility was found, however, since eleven of them had eaten ice cream which had been made locally from cream coming from a Harrisburg plant. In Harrisburg, about this time, there were 25 cases all of whom had eaten ice cream from this plant.

An investigation was made at once, and it was shown that in July, August and September some 76,000 gallons had been shipped to 82 different locations, while pasteurized cream had been sent to nineteen towns.

Complete inspection of the creamery plant showed that the cleansing of cans was inefficient, that there were great swarms of flies in many unscreened rooms, that complete pasteurization was questionable, and that the toilet rooms and general cleanliness of the plant were away below par. Orders were at once given to make improvements.

About this time reports of cases began to come in from other parts of Dauphin, from Cumberland and from Schuylkill county. In the latter, fifty-two cases developed after a picnic at which this ice cream was served, and soon Perry, Northumberland, Lebanon, Huntingdon, Juniata, Chester, Berks and Adams counties reported cases. Toward the end of September the disease was reported in Winchester, Virginia, in persons who had eaten this product so that we begin to see the tremendous possibilities of infection which the widespread distribution from this plant permitted. One hundred and forty-four dealers had received ice cream in these and a few other counties, and the company had directly furnished ice cream to two county fairs, a camp meeting, and a number of large public picnics in nearby counties.

Bacteriological analyses had of course been made, and some startingly high counts were shown in some specimens, so that by this time there was no doubt as to the source of infection.

But no chances were taken, and everything was done to find out how the original infection got into the plant. Records were consulted and it was found that 1,775 different farms had shipped milk to the plant and its receiving stations, some of them being out of the state. A thorough inspection was made at each farm.

The Harrisburg Board of Health had prohibited the sale of ice cream to any Harrisburg retailer, and about the end of September it was found that these orders were being disregarded. On the 30th of September the Department issued orders that no shipments could be made without permission from the Department, and day and night guards were placed at the plant so to insure the following of the order. By October 12th, the plant was gone over again to check up on improvements, and it was found that no material changes had been made. Consequently, orders were issued that failure to comply would mean absolute closing of the plant. On November 1st, the machinery was removed, the building razed, and a new plant was started.

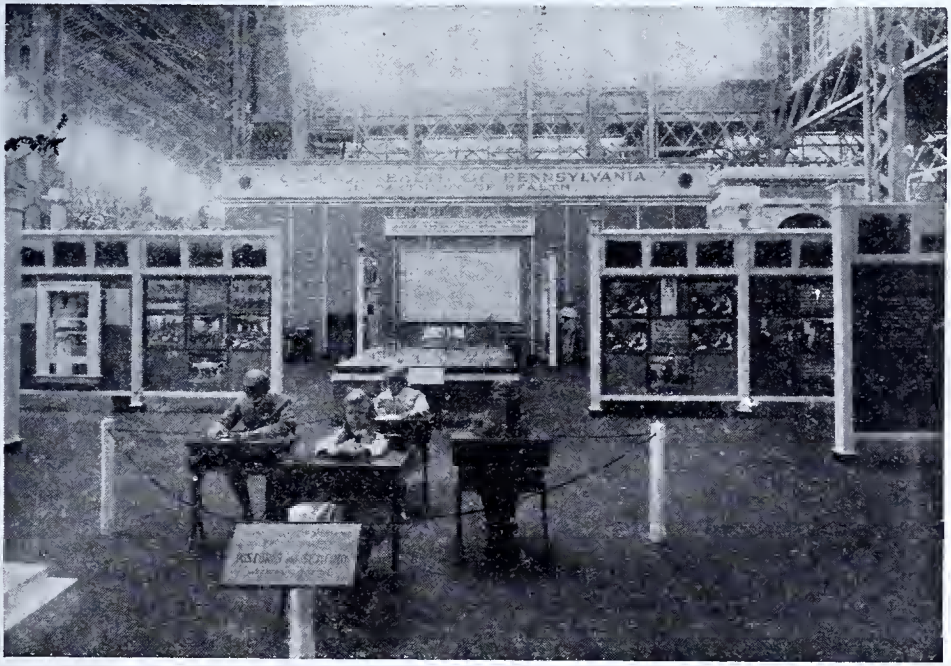
With all this tremendous amount of work, the original source of infection was never located, although it was found that three employees of the plant had contracted typhoid during September and October. It is likely that the large number of cases with onsets in the second week of September and later were caused by the ice cream infected by these men.

This epidemic, which is perhaps the largest on record in the state, began during the first week of August and ran through until the second week of October. A total of 1,851 cases in 21 counties were traced to the use of ice cream or supposedly pasteurized cream from this plant, and it is probable that a great many other cases had their origin here, although they could not be directly traced to it. Butter from the plant was suspected, but laboratory tests proved negative, although it was impossible to obtain specimens of butter that had been sent out during the height of the epidemic.

The story of this epidemic is, of course, very much condensed, but it will give some inkling of the tremendous task that in past years confronted the Department officials in the face of such outbreaks.

## Exhibits

In 1918, when the Panama-Pacific International Exposition was held in California, the Department was invited to enter an exhibit. The chief of the bureau of nursing, Miss Alice M. O'Halloran, was the official representative of the Department at the Exposition, and was in charge of the exhibit, consisting of models of the sanatorium cottages which had been developed by Dr. Dixon, wax figures depicting proper and improper posture in school children, and other public health material.



**The Exhibit at San Francisco**

The Department also had an extensive exhibit at the Sesqui-Centennial Exposition at Philadelphia, in 1926. Here, in the south wing of the Pennsylvania Building our exhibit told, in electrically animated models of villages, sewage disposal plants, water filtration plants, the story of the transmission of communicable disease, and the work of the sanitary engineer in the provision of safe water supplies and the sanitary destruction of sewage. Huge colored photographic cut-outs showed the work of the sanatoria and tuberculosis clinics, while illuminated graphs portrayed the work of the vital statisticians of the Department. Other photographs and models told the story of milk control, drug control, laboratory work, biological supplies and the many and varied activities of the Department.

The Department at the Sesqui-Centennial

## The Value of Public Health Work—Concrete Results

The value of public health work, great as it is, can hardly be measured in dollars and cents, for it is all service. There is an index, however, which gives us a picture of what has been accomplished during the past twenty-five years, and that is presented by our vital statistics tabulations.

Back in 1906, our state-wide population was 7,100,000, and in that year there were reported 10,780 cases of diphtheria with 2,438 deaths, a mortality rate of 34.1. There was one death to each four and one-half cases, a case death rate of 22.4.

In 1930, our population was 9,600,000, and we had 6,183 cases with 490 deaths, a mortality rate of 5.1. There was one death to each thirteen cases, a case rate of 7.9.

Antitoxin was in use in 1905 and 1906, but not widely, and it was not until the Department began to push it and advertise it, that its use became general. Then about 1921, came toxin-antitoxin, the preventive serum, and that was fostered to such a degree that whole counties had the majority of the school and pre-school children immunized.

Down to 1920, our mortality rate wavered around 24, but in 1922, it commenced to drop too, and has averaged about 10.2 since then, with the actual rates below 10 since 1925. In 1930, actually, the rate was but 5.1. This is a glorious picture, actual cases reduced from 21,000 in 1921 to 6,200 in 1930, and death rates dropping from 22.2 to 5.1, all in nine years.

Typhoid fever gives us another and perhaps an even more spectacular picture, for we have had an almost constant yearly drop in both morbidity and mortality since 1906. Thus, in 1906, there were 24,471 cases, and in 1930 there were 1,590 cases, with 1929 low with 1,261. When we go over to the death column, we find that there were 3,917 deaths in 1906 and but 247 in 1930, while the rates show a drop from 54.8 to 2.6. The year 1928 went even lower to 2.0. Nineteen six had more than twice as many deaths as 1930 had cases.

There is a reason for this, too, and a good one. Just go back to 1906 and try to remember how many public water supplies there were. If you can't recall the figures, well, there were just 34 of them. But by the end of 1930 there were about 700 of all kinds in the state.

Pennsylvania at the close of 1930 had 199 filtration plants which also chlorinate the water, and these served over six million people. More than two million more are getting chlorinated, but unfiltered, water. Those eight million or more people represent eighty per cent of Pennsylvania's population. And there is still more to come on the subject of private supplies, wells and springs, and the like.

Do you recall seeing the blue and gold approval signs on wells and springs along the state highways? They were not affixed until the water was proved to be safe, and that, in many instances meant the physical improvement of the supply, the installation of water tight concrete platforms, new pumps, elimination of surface drainage, and so on. Just in one year, 14,438 water sampling outfits were sent out from the Harrisburg offices for bacteriological analysis purposes.

There's the improvement of milk supplies, too. Just think of how many dairies and ice cream plants have pasteurization installations, sterilizers, and clean, sanitary plants.

Of course, much improvement would have come in the normal course of events, but the public demands for improvement were fostered and fed by the missionary work done by the Engineering Division of the Department. And many of our magnificent water-supply plants existing today are the direct result of just as direct action by the Department.

When we leave these major illnesses, and get to talking about the minors, the so-called children's diseases, there are no highly spectacular results to be shown.

There are results, though, for the measles death rate, for instance, has dropped. The last five years have been low, 5.2 being the highest mortality rate, and there has been no similar period in which such low rates occurred over such a length of time. Whooping cough is also low, with no rate above 9.6 in the last seven years, and we used to get rates like 14.5 and 17.8 and back in 1906 it was 21.7. Chickenpox and mumps swing up and down, showing little change from year to year.

Tuberculosis has shown a great change. Here was one of the major killers of a quarter century ago. Death rates ran from 120 to 130, and even more, and even in 1930 we had a rate of 54.9, but that, of course, is a large reduction. Education did the trick here, that and the tuberculosis clinics and sanatoria.

There are a lot more interesting figures. Railroad injury mortality dropped from 30.2 to 5.4, heart disease rising from 133.5 to 239.1, and infant mortality receding from 167 to 66 in this twenty-five year period. The last figures can be traced to the work of the pre-natal clinics, where prospective mothers are given advice and instruction in the care of themselves and their unborn babies, and the baby health centers, which do the same for the babies after they are born. Attributable also to these pre-natal clinics is the drop in the number of still births, which fell from 518 to 40.6 in 1930.

These vital statistics provide material for very interesting study. See the automobile accident death rate, for instance, with its .3 rate in 1906 and a rate of 25.1 in 1930. Of course, there weren't any automobiles in 1906, so to speak, while today there are millions of them in the state.

Cancer deaths are on the increase, as almost everybody knows. The rate was 58.9 in 1906, and the high rate was in 1929 when 103.6 was the figure. Nineteen-thirty gave us a rate of 94.9. Cancer is one of the major killers, since it is ranked only by heart disease, which has death rates well over 200. These diseases have pushed tuberculosis well into the background, but we have no such excellent methods of treatment and cure as exist in the case of the latter disease. It is rather unlikely that rates from these two diseases will improve until better methods of treatment have been discovered and more subjective interest in well-being on the part of the average individual can be developed.

## Conclusion

This, then, is the history of the Department's first twenty-five years of service. With the advances in medical science and disease prevention that are bound to come, and with a clearer and more personal understanding on the part of the individual as to his duties, the next quarter century's progress should become a story well worth recording.

# CHILD HEALTH ACTIVITIES

### J. Bruce McCreary, M. D.

*Deputy Secretary of Health*

THE Bureau of Child Health is the outgrowth of activities of the Health Department developed from time to time relative to the health of the children of the Commonwealth and embraces the Preschool Section, the School Section, and the Dental Hygiene Section.

The bureau, as now constituted, was organized early in the administration of Dr. Charles H. Miner, Secretary of Health. At that time each of the groups in the Health Department dealing with child health was operating as an independent unit. All of these activities were organized under three divisions or sections with Dr. J. Bruce McCreary, then Chief of the School Section, designated as the Director of the Bureau and Dr. John D. Donnelly as Assistant Director, Dr. McCreary continuing as Chief of the School Section, with Dr. Charles W. Sheldon as Field Medical Supervisor, John G. Ziegler as Supervisor of Sanitation, John W. German, Jr., as Assistant Supervisor of Sanitation; Dr. Mary Riggs Noble as Chief of the Preschool Section, and Dr. C. J. Hollister as Chief of the Dental Hygiene Section.

The first work to be established by the Department, looking to the betterment of child welfare, was by Dr. Dixon in 1911, when he succeeded in having passed the first mandatory state-wide school medical inspection law in the United States. This included a compulsory vaccination law for entrance to the public, private, and parochial schools. The second was when Dr. Martin, Commissioner of Health, in 1919, established the dental hygiene service; the third, when the same administration accepted the advantages offered by the Federal Enabling Act, known as the Sheppard-Towner Law, appropriating funds for maternity and infancy welfare work; the fourth, when the preschool child health centers were established; the fifth, the establishment of rural health cars to go into the remote counties to make physical examinations of preschool children and refer them to the nearest physicians or hospitals for correction of physical defects; the sixth, the establishment of a state-wide campaign, looking to the prevention of diphtheria by lasting immunization, and the seventh was the establishment of midwife supervision at that time under the guidance and direction of the Bureau of Licensure.

The personnel of the bureau now consists of a director, three section chiefs, two supervising sanitation officers, one full-time and four part-time supervising school medical inspectors, three full-time organizers, two full-time women physicians in charge of midwife supervision, one supervising dental hygienist, a stenographic and clerical force of twenty-five, approximately 450 part-time local physicians employed on a fee basis as school medical inspectors, and approximately 250 part-time local physicians serving as clinicians in child health centers.

## School Section

For the purposes of administration, our public school system is divided into classified school districts as follows:

The first class school districts are those cities with a population of 500,000 or more. It is needless to say that we have but two of these—Philadelphia and Pittsburgh.

The second class school districts are those cities with a population of from 30,000 to 500,000. Of these, we have 20—Scranton, Reading, Wilkes-Barre, and others.

The third class school districts are those cities, boroughs, or townships with a population of from 5,000 to 30,000. Of these, we have 265.

The fourth class school districts are those boroughs or townships with a population of less than 5,000. Of these, we have 2,296.

The total public school population of the Commonwealth of Pennsylvania is approximately 1,800,000. Of these, there are approximately 444,000 in the first class districts, 260,000 in the second class districts, and 570,000 in the third class districts, leaving approximately 700,000 children in the fourth class districts. A large proportion of these children are housed in 9,000 one-room school buildings.

Of this number of children in the fourth class districts, approximately 80% have been found to suffer from one or more physical defects. Seventy-eight thousand of them are mentally retarded. Of this number, there are but 12% actually mentally deficient, the other 88% being retarded because of some physical defect other than mental—chief of which are bad vision, partial or total deafness, diseased tonsils, adenoids, dental defects, and malnutrition.

The law places the financial responsibility for the inspection of schools in the first, second, and third class districts on the local school authorities, but also provides for the supervision of such inspection by the Pennsylvania Department of Health.

Supervision by the Health Department in the first class districts is limited to a cordial cooperation and, as far as consistent, a standardization of forms and reports.

In the second and third class districts, actual supervision of the work is done by the Pennsylvania Department of Health. One full-time medical supervisor and four part-time medical supervisors, employed by the Department, keep in continual touch with the work and act as liaison officers between the local authorities and the Department. Standardization of report sheets and contracts with local school medical inspectors has been established.

These districts are expected to appoint medical inspectors in proportion to the number of pupils to be examined—one inspector to each 4,000 pupils.

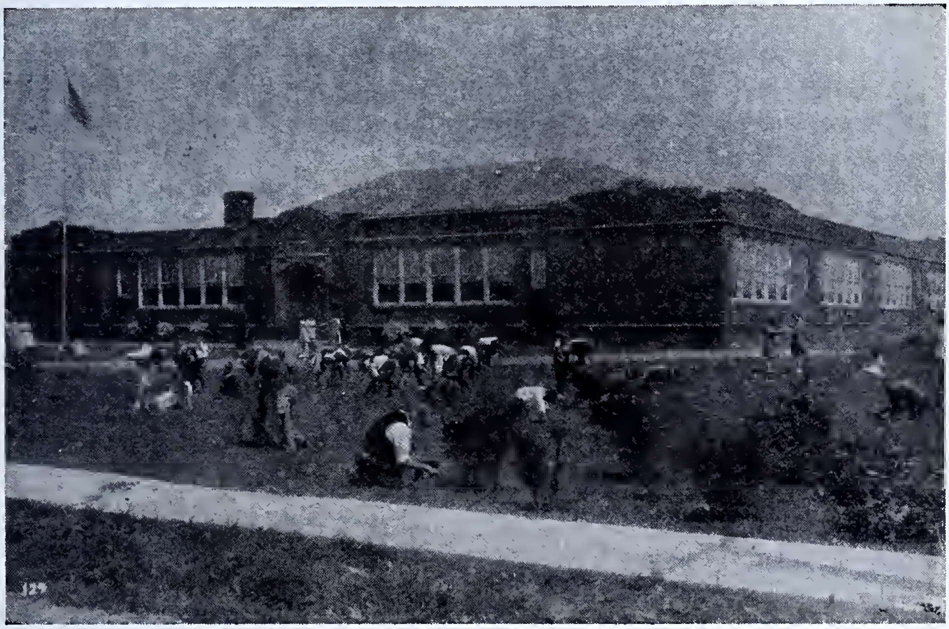
The inspectors not only have the responsibility of the initial physical examination of the pupils, but are responsible for the general conduct of matters of health and sanitation throughout the full school year. They are employed on a monthly salary basis and definite hours in the school room are required of them throughout the school term.

These inspectors are also responsible for the follow-up of physical defects found and are expected to cooperate with the school authorities and school nurses—where nurses are employed—in securing the correction of these defects.

Notifications of defects in children in both the second and third class districts are issued by the local medical inspector or nurse. The Department of Health has no direct administration of health matters in these districts other than the general supervision and standardization of the work.

In the fourth class districts, the responsibility and actual details of inspection are placed entirely upon the school section of the Pennsylvania Department of Health and must be financed by money allotted to it by the legislature. Approximately 450 local physicians are employed in the inspection of the fourth class districts. A biennial physical examination is made of all pupils, their physical defects reported from the central office to the parent; and the follow-up work to secure the corrections is done by the field nursing force of the Department and the help of nurses supplied by health organizations and agencies cooperating with the Department of Health.

This section of the bureau is responsible for, and has supervision of sanitation in all of the school buildings of the fourth class districts. Cooperating with the Department of Education, insanitary and unsafe buildings are condemned and every effort is made to secure good quarters for housing the pupils.



**A Modern Consolidated School**

This section is also responsible for the enforcement of the compulsory vaccination law.

## Dental Hygiene Section

The duties of this section are to influence local school boards toward the employment of dental hygienists, to demonstrate the advantages of the proper care of the teeth and mouth, and supervise the activities of dental hygienists' services already established. In 1920, there were no dental hygienists employed in the public schools of the Commonwealth and at present there are 150.

## Diphtheria Control

In 1921, the first state-wide campaign against diphtheria in the United States was undertaken by the State Department of Health and was under direct supervision of the Director of the Bureau of Child Health until 1929, when it was turned over to the Bureau of Communicable Diseases.

When the work was first undertaken, three objectives were held constantly in mind and with the help of the medical profession the public was taught to know that diphtheria could be controlled by holding fast to these three basic principles:

1. Larger and earlier doses of antitoxin as a curative agent.
2. Strict observation of quarantine of both patient and contacts.
3. Lasting immunization by toxin-antitoxin.

As a result of ten years of intensive campaigning along this line, the Department continues securing most gratifying results.

When the work started, there were more than 20,000 cases of diphtheria in the Commonwealth for that year. This figure has gradually been reduced until, in 1930, there were but 6,183 cases.

In the beginning of the campaign, there were over 2,000 deaths from diphtheria in that year. In 1930, there were but 501 deaths.

Death rate per 100,000 population in 1921—22.4.

Death rate per 100,000 population in 1930— 5.2.

During the same period, approximately 1,000,000 children have been given the protection against the disease, outside the cities of Philadelphia and Pittsburgh, more or less under supervision of the State Department of Health. The local physicians and nurses in communities have willingly volunteered their services.

In 1930, there were fifteen counties reporting no deaths from diphtheria. Furthermore, in 1930, there were three counties—Cameron, Forest, and Sullivan—which reported no cases of diphtheria and consequently no deaths. In addition, there were forty-five cities and boroughs with a population of over 10,000, which reported no deaths from diphtheria. There was one borough of over 10,000 population, which reported no cases or deaths. This was the borough of Chambersburg, Franklin County.

It is the present policy of the Department that local campaigns will no longer be inaugurated by the Department of Health, but it will continue to furnish toxin-antitoxin free of charge for children of all ages, both in private practice and in public health work in the Commonwealth.

## Preschool Section

Early in the administration of Dr. Martin as Commissioner of Health, child health centers were established throughout the Commonwealth. These centers were under state supervision and were entirely educational in purpose. Their aim was to teach the general public the importance of keeping the well child well and the discovery of remediable defects in others, no treatment being given, but in each instance the patient was referred to the family physician. Gradually two major groups of centers were developed:

1. Those where a state nurse is detailed for service.
2. Those conducted by outside agencies.

These latter give full cooperation, use the Department's organizers, uphold state standards of procedure, use Department literature and record forms, and send regular monthly reports to the section chief. There are 142 state child health centers and 305 cooperating child health centers now in operation.

Prenatal clinics have been organized in a few of the counties of the state, but have not been popular, except in the larger centers. Appropriate prenatal literature is supplied by the section and is widely used by nurses, private physicians, and medical colleges.

In 1922, federal funds were available and expansion of the activities was possible, a large portion of the funds having been expended in nursing service.

Also, in 1922, midwife supervision was begun in restricted areas in the coal regions under full-time women physicians employed by the Department of Health with the permission of the Board of Medical Education and Licensure.

**A Midwife Class**

Gradually, more territory was added until ten counties were well organized, the midwives under good control and being regularly met in classes, and their cases followed up with post-natal visits by the state nurses.

In 1929, the law was so amended as to give the Department of Health the responsibility and supervision of midwives over the entire state, outside of the cities of Pittsburgh and Philadelphia, the actual licensing of the midwives continuing under the Board of Medical Education and Licensure. Two full-time women physicians are now in charge and a midwife inspector is responsible in each county for annual registration and general supervision. Gradually, counties hitherto not in order are being surveyed.

In 1925, a motor unit was established for three months in some of the most rural areas of the state for the examination of preschool children and infants. Two years later, a second such unit was added. Annually these two motor busses, fully equipped and staffed with doctors, nurses, and dental hygienists, are visited by thousands of young children with their mothers in the rural areas most remote from physicians. Careful preliminary organization of local communities, with the consent of the medical profession in such counties, is accomplished. Children with physical defects are referred to physicians in the community or hospitals, where available, and a careful follow-up by our nursing service gives good results.

In 1929, health supervision was begun in the kindergarten schools of the fourth class districts, a full-time woman physician being in charge.

Literature on all phases of child care, record forms, and posters are distributed free of cost to organizations, including medical schools and hospitals, where teaching and clinic service offers an opportunity for instruction in public health or for conducting their work in accordance with state standards.

# TWENTY-FIVE YEARS OF INFECTIOUS DISEASE CONTROL

**J. Moore Campbell, M. D.**
*Director, Bureau of Communicable Diseases*

JUST about twenty-five years ago the old State Board of Health which had been in existence since 1886, splendidly equipped so far as its immediate personnel was concerned but with limited power and more limited funds, made way for a State Health Department, created by the legislature of 1905. The extent of this infant Department's activities and the authority and scope of action vested in its head had nowhere a precedent in the Union nor have to this day been duplicated elsewhere.

For the first time in this state, and we believe in any state, there was extended to its remotest corners, through the several bureaus which the first Commissioner of Health, Dr. Samuel G. Dixon, created, all that the science of public health had at the time to offer for the protection of its citizens and with ever-increasing effectiveness as his organization was perfected.

Communicable disease control, then as now the major concern of the Department, required the establishing of a central division to handle the problem and agents throughout the state to carry out the details of quarantine and investigation into the sources and causes of epidemics.

Local boards of health in boroughs and cities were not disturbed but were closely linked with the new division through routine weekly reports of morbidity and immediate reports, both to the county medical inspector and to the central office, of the appearance of epidemics of whatever type.

Each county became an administrative unit with a medical officer designated the county medical inspector in charge. An adequate number of health officers was added to the county personnel as well as nurses, school medical inspectors, tuberculosis clinicians and others to round out the necessary public health service.

The Division of Medical Inspection controlled as its own the county medical inspectors and the health officers and, through a sub-division of School Medical Inspection, the school medical inspection work of the day.

Within a year free diphtheria antitoxin furnished by the Department was available for any one who could not afford to purchase it and in any quantity that his physician thought necessary, thus extending to the whole countryside the advantages of specific treatment enjoyed at that time only by the poor of Philadelphia and Pittsburgh.

During the first year of the Department's history 24,471 cases of typhoid fever were reported and 3,917 persons died of this disease. Diphtheria threatened the lives of 10,870 and actually claimed 2,438 of them and scarlet fever, measles and whooping cough added their quotas.

Evidently there was much to do. Advisory Board regulations for the time served for a quarantine law and with these as their authority the sixty-six county medical inspectors and the corps of between six and seven hundred health officers set about their task. The war against controllable and preventable infections was on.

Quarantine signs began to appear in even remote rural areas where they had never been seen before, health officers began to be frequent visitors at the little old red schoolhouses and unquestionably there was something new abroad in rural Pennsylvania.

The county medical inspectors' and the health officers' days were full ones, especially those of the latter. The automobile had not yet come to their assistance and they made their rounds at from five to seven miles an hour, and covered many of them, with their horses and buggies. They rarely ate three meals a day at home and not infrequently only the first. A pretty penny was necessarily spent by the division for man and horse feed but it was only a justified item of insurance against preventable illness and death. Their efforts in behalf of those they tried to serve were not always understood nor appreciated. Quarantine then to many, as it is now to a much smaller number, was an unnecessary restriction of personal liberty to be avoided if at all possible. Arguments were frequent and sometimes physical clashes, and these sufficiently numerous for a while to require the issuing of an order that the health officer in his efforts to quarantine was to desist if the householder offered violence and under no circumstances to retaliate but to withdraw until he could be reinforced by a constable or a state policeman. The family watch dog very often effectively barred the gate.

The Quarantine Sign Goes Up

For years the hours of the division's office force were nominal only—are yet, for that matter, but there is a semblance of regularity that did not for a long time obtain. They began at nine in the morning and for some extended well into the night. Epidemics of this, that or something else, and very sizable ones, were cropping up continually and with the routine work and the planning incident to a new machine the days were scarcely long enough to get it all done.

The division was officered by a chief medical inspector, an associate chief medical inspector and an assistant chief medical inspector. Quite a little of the time of the chief was spent in the field; the associate chief, really the epidemiologist, was in the field most of the time; and the assistant chief, actually in charge of school medical inspection work, was a second epidemiologist and, also, much in the field.

Six clerks were required to correlate, tabulate and file morbidity reports from health officers and local boards of health and sometimes additional temporary help was necessary to assist them in catching up. There were thousands of reports of typhoid fever and diphtheria alone beyond what are being received today, when only half the number are employed in the same kind of work.

Another five or six clerks were daily and even nightly at their wits' ends checking vouchers which health officers had prepared and submitted for their fees. Morbidity and collateral reports previously filed by the health officers were the evidence that the work had been done and reports and charges made had to agree. One or more stenographers were kept fairly busy writing letters about the errors these men made and otherwise checking up on what they did and how they did it, for this was not always clear. County medical directors also submitted vouchers for their fees but the troubles of the clerks who handled them were fewer. Later came the salaried county medical director and the salaried health officer and the number of health officers paid fees gradually dwindled to a mere hundred or so, so that at the present time a single clerk makes up their vouchers and with only a fraction of the difficulty that once attended this work.

The passing of time has wrought many other changes. Administratively in 1923 the Department received a general overhauling. The old Division of Medical Inspection, sadly crippled and neglected for several years, was given an epidemiologist, later a second and, eventually, a third. At the same time it became a Division of Epidemiology in the Bureau of Communicable Diseases and there were grouped about it as allied divisions in the bureau the old Division of Tuberculosis Dispensaries, the much younger Division of Restaurant-Hygiene and the still younger Division of Venereal Diseases.

Little or no change has marked the Tuberculosis Division's work since its institution very early in the history of the Department. Its clinics, designed to offer treatment to the indigent tuberculous and to seek out their contacts, particularly children, for early attention, to afford private physicians an expert consulting service and to function as the only gateways to the Department's originally one and now three tuberculosis sanatoria, continue to this day these fundamental activities.

The work of the Restaurant-Hygiene Section, from a feeble beginning about 1917, has grown by leaps and bounds. Its original chief, with the assistance only of the Department and borough health officers, enforced as he could the legislation requiring medical examination of food handlers and the sanitary maintenance of public eating and drinking places. Added to a more thorough enforcement of the law as personnel was added to this division came the enormous demands made upon it through the increasing popularity of motor touring, with the consequent mushroom growth of roadside eating stands, all of which it was of first importance to cover for the protection of the traveling public. County fairs from August to November are of themselves at this season sufficient to keep the three inspectors and the chief of the division himself practically constantly in the field. In the fall and winter when their rural work falls off they are just as busy bolstering the efforts of borough and city health officers in their oftentimes feeble attacks on uncleanly eating establishments.

Venereal disease control, a product of the Great War, likewise began in a small way in 1917. By 1919, it had become firmly fixed as a public health project, not only in this state but wherever there were competent public health organizations. Clinics were established throughout the state, at first entirely maintained by the Department but as time went on and appropriations failed it became necessary to a considerable extent to share the burden with local agencies. Treatment was recognized as necessary and important but an equally vital function of the clinics is the discovery of the sources of infection and their treatment. The problem is viewed, and properly, from the public health standpoint only.

The problems that beset the old Division of Medical Inspection are still those of the Division of Epidemiology, its successor, but perhaps they are not quite so pressing. On the other hand, the present division has some about which the older one never knew—largely those of administration, of doing or rather trying to do public health work in a 1931 manner with dollars apparently supposed to have a 1905 purchasing power. This is universally the public health man's lament. He is the world's prime optimist—the ends for which he and his professional brethren are striving and particularly the material means, the funds, with which many of them will be attained are to him just around the corner, or, may be the next corner, so he sticks to his job and plods on. He even forgets that through the years he has turned a good many corners—unproductive corners, many of them. May be, after all, he is only the world's prime visionary. Pardon the digression but public health folks will understand.

Whereas, two decades ago epidemics of typhoid fever were numerous and individually numbered not infrequently several hundred cases, today, ten or a dozen would be an alarming number and as for size those which now occur would have been considered insignificant and their study perhaps entirely sacrificed to the more urgent demands of the more serious only ten years ago. Between two and three hundred cases from a polluted spring such as happened in Armstrong county fifteen years ago, almost two hundred cases as happened in a Northumberland county town from a contaminated milk supply a decade or more ago, eighteen hundred and fifty-one as happened just fifteen years ago from a contaminated ice cream supply which was shipped to all the central counties in Pennsylvania, are, we confidently believe, calamities that are not likely to occur again. It is somewhat difficult for us to realize today that there could have been so many cases of and deaths from typhoid fever as 24,471 cases with 3,917 deaths in 1906; 20,080 cases with 3,538 deaths in 1907; or 10,520 cases with 1,470 deaths in 1913, when at the present time there are occurring less than fifteen hundred cases a year and fewer than five hundred deaths.

In the earlier days the steadily increasing numbers of safe water supplies to large centers of population tumbled the number of cases with comparative rapidity but there was ever back of these now protected communities the rural areas where water and milk were not always safe, where it was exceedingly difficult to make them safe.

Continual hammering at rural sanitation, preaching the dangers that lurk in even sparkling waters, the search for carriers, largely successful through the use of motor laboratories, and the extension of pasteurized milk supplies to even smaller communities are gradually helping. Whereas fifty-five of every one hundred thousand of our people died of typhoid fever in 1906, in 1930 barely three per hundred thousand died of this disease; and this year was one of those which disappointed in that there was a rise to the extent of some three hundred cases and some fifty deaths as compared with the preceding year due to the severe drought which prevailed throughout the whole summer and most of the fall. Normally, perhaps 1930 should have yielded less than ten hundred cases of typhoid. Most certainly the year which can be described as having provided less than that number is not far distant.
The epidemiologist has all along watched the terrific typhoid morbidity of twenty-five years ago decline year by year very definitely but all too slowly from his impatient standpoint. Off years, when an accident here or there has led to a rise in the number of cases and the expected and hoped for further decline has not materialized, he may have been disappointed, but even though his problem constantly grows more difficult he knows that the days of typhoid fever as a serious menace to life in Pennsylvania are already numbered.

The history of diphtheria since the inception of the Division is equally encouraging but cause for jubilation dates back perhaps less than ten years to the energetic use of toxin-antitoxin. Until then, regardless of the liberal distribution of antitoxin by the Department and its increasingly intelligent use so far as dosage is concerned by practitioners, little was gained so far as diphtheria fatalities were concerned. After the first few years of the Department's history the annual number of cases, even down to 1925, seesawed back and forth from ten to twenty thousand cases a year and the deaths from nineteen hundred to twenty-four hundred a year. With the coming of toxin-antitoxin, the propaganda concerning it circulated by the Department and the pioneer work of its own medical officers, the picture began to change. Cases which numbered sixteen thousand and the deaths fifteen hundred and four in 1922 have consistently decreased until in 1930 there were but 6,183 cases and 490 deaths—stated proportionately, a mortality decline from sixteen per one hundred thousand to five, with every indication that further marked declines in morbidity and mortality will occur this current year, 1931. The 1930 death rate from diphtheria was only one-quarter as great as it was in 1921, when toxin-antitoxin work began. Prior to toxin-antitoxin it had for almost fifteen years remained essentially stationary.

Smallpox, the other of our trio of readily controlled diseases is, thanks largely to the school vaccination law of 1895, no longer included in the ills we have always with us. Depending upon how often a visitor with the disease comes to us from another state, we go for weeks and months entirely free from smallpox in Pennsylvania. Unless there is much delay in recognizing the case by physicians, these introductions of infection are but flashes in the pan that soon burn themselves out. Prompt bolstering of the defense afforded by our already vaccinated people, by more vaccination and quarantine limits the cases that might otherwise occur to a mere handful or less. Forty or so cases during a whole year has been our good fortune for several years past.

When our steel mills were hammering out munitions and our other industries also going day and night during the Great War, labor was imported from wherever it could be found—from the South to a great degree and also from Mexico. These hordes of unvaccinated laborers brought their smallpox with them. Smallpox jumped from 97 cases in 1916 to 370 in 1917 and 612 in 1918—then with the easing off in industry and fewer infected arrivals it fell gradually to normal. These were busy days for the epidemiologist—practically every industrial town in the state saw something of him during these years. In 1924, and the earlier part of 1925 there was again a flare-up and a very virulent one. What folks call black smallpox and shudder when they think of it came to us from one of the North Central states. At intervals it invaded Pittsburgh, Pottsville and Philadelphia. Five hundred and forty-eight cases during these two years was the result and sixty-eight of them died. Incidentally, there has not been a smallpox death in Pennsylvania since.

Smallpox control is fascinating work—no sleuth ever trailed his bad man with more zest or searched for clues more diligently than does the epidemiologist on the track of the fellow who brought in smallpox and the contacts he made. With us the chase always ends at the state line, where our information is handed across to others and the hunt continues. The puzzling appearance of smallpox in three fairly widely separated communities in Westmoreland and Fayette counties a few years ago was clear as day when it was found that the same bootlegger from West Virginia served them all and that he didn't allow his illness with smallpox to keep him at home. How the virulent smallpox of 1924 spread from the hills back of Pottsville to a neighboring town was cleared up in exactly the same way.

Smallpox in school children who have been vaccinated is impossible but down in Franklin county, where there used to be much anti-vaccination sentiment (they burned Commissioner Dixon in effigy near Waynesboro a good many years ago during a smallpox outbreak there), a number of "vaccinated" youngsters, along with adults, had it. So solid was the epidemiologist's faith in vaccination and so sure was he that it was smallpox that he concluded the trouble was with the vaccination and not the diagnosis. And he was right. On casual glance these "vaccination" scars looked good—had passed the school medical inspector's examination and no blame to him; but successful vaccination and smallpox cannot roost together. The upshot of the matter was that the parents of these children, in order to evade the vaccination law, had taken them to a physician in a neighboring state who was expert, through the use of caustics, in producing ulcers on the arm which, when healed, made scars that could be told from honest vaccination scars only by the most careful study. His vaccination certificates are no longer acceptable in this state nor are they in his own.

These smallpox hunts alone furnished many interesting stories; perhaps we have already given them more space than they should have had.

Perhaps the most outstanding feature of present-day disease control as contrasted with the ideas of even twenty-five years ago is the altered conception of disease transmission. It has not been due altogether to the discovery of causes for these diseases since none are known now so far as the common infections within this latitude are concerned that were not known then but, although the germs or other agencies responsible for measles, for instance, or for smallpox or for infantile paralysis are still unknown, there is very definite recognition of the fact that whatever these germs may be they leave the patient's body only through the body's discharges, that it is in these alone that danger of transmission to others lurks and, more than that, that whatever these germs may be by and large they do not long survive outside the human body —in other words, instead of contagion being some elusive, intangible, mysterious and ubiquitous something it has become an entity on which, as it were, one may put his finger and the migrations of which can, at least theoretically, be definitely blocked.

There is no more emphatic expression of this newer knowledge than our discontinuing to fumigate rooms in which there have been infectious cases. Chapin, in Rhode Island, showed the way years ago but with the conservatism characteristic of the health official others were slow to follow. Pennsylvania fell into line in 1923 and the lay protest which followed may still be occasionally heard. Even a physician wrote when this change in policy came to his attention: "If you are going to give up fumigation why do you not stop quarantining?"

The Health Officer of Old

One other tribute to the mysterious and insidious disease germ was the one-piece suit of overalls which the health officer used to don before he entered the contagious disease home. It had no buttons because even with a button in it a buttonhole was a wide-open space through which germs might reach the clothing. Where it met in the front the edges, provided with tapes for tying, came together in an interlocking manner that it is difficult to describe. There were two sets of these tape ties and when the thing had been finally entered and these tapes tied it would have taken a wily bug indeed to have found his way inside it. There were tapes at the cuffs and there were tapes around the ankles and the health officer was violating the regulations if he did not tie them all. The head covering was a skull cap with a havelock, or, rather, a havelock plus. It tied under the chin in front and the apron hung out over the shoulders. These suits were made of very heavy duck, were snug or not depending upon the health officer's good luck and, in any event, were torture in hot weather. In addition he wore gloves and overshoes. His fumigating paraphernalia was bulky, consisting of two large pans, the one with a funnel-shaped flare to catch the splash; indeed, his whole outfit in those days was no insignificant thing. What with his tinware, his roll of gummed paper to seal rooms, his dichromate of potassium crystals, his can or jug of acidulated formalin, his grip in which he carried his overalls and his supply of placards and other forms he must have been a very impressive individual.

How the price of potassium permanganate and potassium dichromate went beyond the Department's reach during the War, how the health officers were supplied with spray guns and fumigation became a matter of spraying rooms and their contents with formalin, how some of the health officers failed to return the stock of acidulated formalin which they had used with the dichromate, how many of them to the distraction of the central office sprayed this acid mixture about homes and ruined clothing and furnishings, how the irate householder threatened when he found the Department could not compensate him for his loss, how in desperation formaldehyde candles were substituted for spray guns, how the public, deprived of fumigation, clamored for it, if it could all be told would round out the history of fumigation so far as this Department is concerned. Today the householder does his own disinfection with soap, water, sunshine and air and a gill of cresol which the health officer has left, perhaps to perpetuate tradition that a pungent odor would "purify" the atmosphere.

The wits and patience and endurance of the division's personnel have many times been severely tested. Harrowing experiences such as the Austin Dam catastrophe, when the flood waters destroyed most of the town and scores of lives, called forth all its available personnel for duties of one sort or another. The summer and fall of 1916 were among the most trying in its whole existence. In addition to the extensive outbreak of typhoid fever which involved a number of counties and caused eighteen hundred and fifty-one cases, already referred to, infantile paralysis swept this and other states. Twenty hundred and seventy-five cases of this disease occurred during that year, nine-tenths of them during the summer and early fall months.

In an effort to protect the state from the bringing in of infection from others an actual, not paper, quarantine was established around its borders. So far as they could be spared all of the division's health officers and hundreds of temporary employes to re-enforce them were mobilized and placed on the state lines wherever roads or ferries crossed them. Interstate railroad trains were met at their first station stop in Pennsylvania and all children, with or without their parents, less than sixteen years of age not carrying certificates of good health and a statement that they had not been exposed to cases of infantile paralysis were detained. Those without these credentials attempting to enter by highway or ferry were denied entrance. Fair warning had been given of what Pennsylvania intended to do but in spite of this hundreds of families found their passage into Pennsylvania or through it blocked and even those returning to their Pennsylvania homes from vacations spent elsewhere ran afoul of this quarantine order. That they might not be inconvenienced more than necessary, telegraph wires were kept busy by those in command at quarantine points seeking to get for those detained the information which they had not brought with them. Busier days and nights, for the service covered the twenty-four hours, the division had never known, and the soldier who tented on the old camp ground "looking for the war to cease" only antedated by fifty years the Commissioner of Health and his subordinates in his longing.

Those of us who weathered those hectic months, had we thought about it at all, might have supposed that nothing more arduous and trying could have been exacted but the harrowing experiences of the influenza pandemic were but a brief two years in the offing. It was to bring responsibilities even graver than had been those of the infantile paralysis epidemic and a sense of helplessness which was all but crushing.

About the middle of August, in 1918, when certain of the Department personnel were in Massachusetts studying the influenza situation there and some of our nurses actually helping in the care of the stricken in that state, came insistent appeals from the county medical inspector in Jefferson county for our help right there. Perhaps for a day or so we imagined his estimate of the situation was exaggerated or that he was hysterical. When finally an acting associate chief medical inspector was sent him it became immediately plain that things were worse even than he had pictured them. His troubles then hinged about the little soft coal mining village of Wishaw. It had but three hundred population and within a week two-thirds were stricken and many died. To what extent the Army had claimed our medical men and nurses was hardly suspected until their services were needed at home. One of the phases of the Department's program of assistance and relief was the establishing of emergency hospitals in which cases of influenza could be concentrated to make it possible for all to receive treatment and care from the very few medical men available. The first of these hospitals was established in a schoolhouse in Wishaw and within twelve hours patients were being brought in. By that time it was dark and it was raining and the mournfulness of the whole procedure was in no sense relieved when the sick began to arrive in an open undertaker's wagon covered with tarpaulin to keep them dry. Most of them left in the same wagon for the morgue which had been established in the Labor Union Hall, there to await the services of the overburdened undertaker and the arrival from Reynoldsville of coffins, which could not be supplied fast enough.

Wishaw was first, or appeared to be first for almost simultaneously it seemed the whole state was on fire. The epidemiologist was recalled from Wishaw and immediately detailed to a district of five or six western counties adjoining the Ohio line, with headquarters at New Castle. Other medical men were put in charge of similar districts and the state was thus covered. It was his duty to organize medical attention for the sick, to urge and supervise the creation of emergency hospitals and, with the nurse detailed from the Nursing Bureau, to see that nursing service—trained, practical or volunteer—was adequate and to keep the central offices informed as to the progress of the plague. These things he did so far as he was able but it was not until towards the decline of the epidemic in early November that Army physicians and practitioners released from other states began in any way to meet the requirements of the situation.

How often families among the poor lay down, one after another or almost simultaneously, and died with little or no attention cannot be known for they were not counted then. One hovel in West Pittsburgh, where the mother and father and one small child were found together in their bed, the mother and father dead, the child going, and two other children alone and sick in an upstairs room, will never be forgotten. It would take a DeFoe to describe these scenes adequately—the courageous helpfulness of some and the paralyzing fears of most. We had better leave it alone.

# PROGRESS OF THE STATE'S NURSING SERVICE

**Alice M. O'Halloran, R. N.**

*Former Chief, Bureau of Nursing*

THE nursing service of the Pennsylvania Department of Health began in 1906 shortly after the organization of the Department, in an effort to control disasters or epidemics throughout the Commonwealth. The typhoid fever outbreak in Nanticoke was the first epidemic in which the state assumed control. During the same year there were outbreaks of typhoid fever in Johnstown, Berwick, Johnsonburg and Palmerton, but with the exception of Johnsonburg and Palmerton these were small epidemics and did not receive extra nursing care.

With the expansion of the tuberculosis dispensary service in 1907, additional nurses were employed. The tuberculosis and epidemic service required the greater portion of the nurses' time until the year 1917, when child-health work and the service for the control of venereal disease were started.

In 1918, the Department had an exhibit at the Panama-Pacific International Exposition in California, and during that period the chief of the bureau of nursing represented the Pennsylvania State Department of Health at the Exposition.

In 1919, a more general program for the nursing service was adopted, including other phases of health work such as follow-up of midwifery, establishment of nutrition classes, etc. And in 1922 the health-officer service was added, including health education in the home, particularly in reference to the control of communicable disease.

During the latter part of 1920 the nursing service was made a bureau of the Department by the then Commissioner of Health, Dr. Edward Martin; this bureau at that time having a director, assistant director and four district advisors, each advisor covering one-fourth of the state.

Due to the increase in activities, and the special attention given to pre-natal and child-health service, it was necessary to appoint a special instructor in this branch of the work. This appointment was made in the early part of 1925.

In the first half of 1927, the extension clinics represented one of the newer features, and were conducted as a part of the tuberculosis work. A series of these clinics were conducted in different counties throughout the Commonwealth.

Difficulties arising in the mining sections of Pennsylvania presented a health problem which demanded a great deal of time and attention from the nursing force during the last part of 1927. A complete survey of eviction camps was made, and the nurses in the districts where these camps existed kept strict supervision over the health and sanitary conditions in the camps. Visits of inspection were made regularly. Reports show that very little illness occurred.

Due to the fact that all nurses assigned to the Health Department do not have special preparation in the field of public health, it was deemed advisable for the Department to conduct a special school of instruction for nurses. The first course was conducted in November, 1926; and since then one has been conducted every year.

From December, 1928, to April, 1929, it was necessary to postpone many of the regular activities of the bureau so that the state nurses could render care to the many patients suffering from influenza. In February, 1929, nurses were assigned to make a special survey in seven counties. The survey was completed after many days of strenuous work and statistics show that this survey covered a contact of 55,000 persons.

Our state nurses in the Westmoreland county district rendered assistance at the mine disaster which occurred at the Kinlock Mines during March, 1929.

The special morbidity survey which started February, 1930, and completed in April, 1930, was an outstanding feature. This survey covered the 67 counties, and a total of 27,496 households were visited. The number of people in these households totaled 125,623 which is approximately one per cent of the population of the Commonwealth.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
DEPT OF
STATE CLINIC
HEALTH
The patient welcomed to the clinic.

**The State Nurse on Duty**

In the past six or seven years the follow-up of the medical inspection of school children in fourth-class school districts has been a new and outstanding feature. This work includes, when possible, the nurse to assist the medical inspector at the time of inspection, the follow-up of the medical inspector's work whereby the nurse helps the parents to secure necessary corrections of medical defects.

With the completion of the State Hospital for Crippled Children at Elizabethtown, it became necessary to visit and investigate the patients discharged from the hospital. A special orthopedic supervisor was appointed to this particular service, and the nurses also assist.

A uniform dress has been adopted by the Bureau to be worn by all state nurses. Also uniform coats and hats are worn.

During the summer months for the past six years the force has been assisting the physicians on the Health Car with the examinations of children. These children are visited and an effort made to secure corrections of defects.

It would have been quite impossible to keep up with the demands of the work, which has increased so much in the last ten years, without the assistance derived from the ninety-five state automobiles assigned to the use of this bureau. The automobiles have enabled the nurses to reach the remote rural sections, to cover a larger territory, and in general to carry on a larger piece of work.

**The State Nurse Goes Everywhere, Does Everything**

At the present time our service includes the following phases; tuberculosis, venereal disease control, child health, pre-natal, nutritional and, in addition, the follow-up of midwifery and registrars. Also, toxin-anti-toxin campaigns, follow-up of medical inspectors' reports in fourth-class school districts, orthopedic and special surveys, epidemics and disasters.

The nursing corps, in addition to the chief and assistant chief, now includes: 2 supervisors, 1 instructor, 1 orthopedic supervisor, 146 staff nurses.

# THE BUREAU OF ENGINEERING

## Howard E. Moses

*Assistant Chief Engineer*

MR. F. Herbert Snow, then a consulting engineer of Boston, Massachusetts, was early in the life of the Department appointed by Dr. Dixon as chief engineer. Mr. Snow organized a small corps of engineers who were supplemented by the engagement, on a fee basis, of practicing engineers to pass upon local problems.

Mr. Snow established sound policies as to engineering practice which have continued through the intervening twenty-five years, only being enlarged and expanded as new developments have occurred in sanitary engineering.

Scarcely had the new bureau been organized in 1905 when on September 9th a large outbreak of typhoid fever was found to be in full swing in Nanticoke, Luzerne county. The bureau was still in its infancy but the chief engineer himself went to Nanticoke and fought side by side with the Department's medical and nursing staff until the dread disease was conquered. At the end, in a town of 15,000, there was a total of 437 cases and 50 deaths.

This town is not far from Plymouth where in 1885, then having a 9,000 population, occurred 1,104 cases of typhoid fever with 114 deaths. The report of Dr. Louis Taylor on the Plymouth epidemic is a pioneer classic in epidemiology. In 1903–04, just preceding the organization of the Department of Health, the disastrous Butler typhoid epidemic startled the Commonwealth—1,277 cases of typhoid with 111 deaths. Other major and many lesser outbreaks of typhoid fever, dysentery and gastro-enteritis followed. In the Pittsburgh suburbs, 3,706 cases of this latter disease occurred; Erie had 1,078 cases and 131 deaths from typhoid; Coatesville twice with a total of near 500 cases; Allentown, Philadelphia, Grove City and others too numerous to mention were heavily afflicted.

Generally the cause was found to be an infected water supply, although milk played its part. The obvious remedy was first of all the development of safe water supplies under the authority conferred upon the Commissioner of Health by the Purity of Waters Acts of 1905. This became, and is now, the bureau's most important activity.

Only 33 water filtration plants were in existence in 1905, and the big city plants were just coming into being. At the end of 1930 there were 198 filtration plants in 48 counties serving 6,000,000 people each day with a safe water supply.

Chlorination of public water supplies in this country was first begun in 1908. The next year saw Pennsylvania's first installation. Today in 65 counties there are 327 waterworks protecting by this agent the daily water supply of 2,000,000 people.

In these gratifying developments the bureau has played an important part by persistently preaching the doctrine of pure water, and constantly insisting that only by ceaseless vigilance can the waterworks safeguard its output.

These things, of course, are not the whole cause for Pennsylvania's reduction in typhoid fever—from a rate of 54.8 per 1,000,000 population in 1906 to 2.1 in 1929—but they undoubtedly contribute greatly in this notable saving of lives.

A development of quite recent years in Pennsylvania is the installation of plants for the rectification of water. Thus we have water softening, iron and manganese removal plants installed largely by the insistence of the public in having water which is not only safe but also palatable, reasonably soft and non-corrosive within certain limits. There are 22 such plants in Pennsylvania, all west of the Allegheny mountains.

Other waterworks have installed processes for use in handling water supplies containing taste and odor producing substances. Several plants have introduced the ammonia-chlorine process; while other plants make use of permanganate of potassium for the same purpose. One other plant during the drought last year made use of activated carbon to combat very disagreeable tastes and odors appearing in a large public water supply which other processes would not remove.

**The First Public Supply in Pennsylvania**
**Schaefferstown, 1736**

Beginning in 1924, under the direction of the bureau, examination has been made each year of water supplies used by the traveling public along Pennsylvania highways. That year, 2,000 miles of roadway were traversed and 841 supplies examined; while in 1930 the miles traveled had increased to 4,500 and 4,474 supplies were examined. Three mobile laboratories were used in this work in 1930. The "Approval" signs are a valuable aid to the tourists traveling over our highways.

The Secretary of Health has extended free laboratory service throughout Pennsylvania for the examination of private water supplies. The public appreciates this opportunity and the work has grown steadily.

Another protective measure is the issuance of permits for the sale of bottled water. The requirements are rigid and are such as to prevent the sale of unsatisfactory water.

An important contributing factor in the reduction of typhoid fever has been milk control. Some sporadic efforts were made rather early in the Department's history, chiefly by way of dairy farm inspection, generally during epidemics. Not until 1919 was this problem approached in a comprehensive manner when the section of milk control was established in the Bureau, where it remained until October 22, 1929, then being created as a separate bureau, whose report will appear elsewhere in this issue.

Since milk control measures were undertaken, infected milk as a factor in typhoid fever outbreaks has been more appreciated. It is reasonable to think that some epidemics of undetermined origin should have been ascribed to improperly protected milk.

The past quarter-century has seen a substantial improvement in sanitation of the community and of the individual home in the country. The extension of public water supplies brought the attendant problem of sewerage. A quotation from the 1904–1905 Report of the State Board of Health, the predecessor of the present Department, gives a slight indication of the problem confronting the newly created bureau.

**A Modern Filtration Plant**
**Franklin, 1930**

> "Most of the towns and cities of this Commonwealth are deficient in sewerage. This inherent condition continues from the fact that the authorities of most of these places are not thoroughly informed upon the value of a thorough water carriage system, with its great value in assuring public health and convenience. It is evident that the installation of a thorough water carriage combined system would relegate the dangerous outdoor closet to oblivion."

Today, generally speaking, the larger towns are fairly well provided with sewers. This includes those having a population of 2,500 or more, and is almost entirely true of those with populations in excess of 5,000. The same does not hold with the smaller incorporated municipalities, since of some 660 boroughs with populations of less than 2,500 only 160 have public sewer systems.

In the matter of sewage treatment a rather creditable story can be told. In 1905, there were 15 sewage treatment works in Pennsylvania. The largest was at Reading serving only a portion of the city. The next largest was at Altoona and received sewage from the western half of the city. There was only one other treatment works in an incorporated municipality, the remaining 15 being found in several smaller communities and institutions.

Although the growth of sewage treatment works was not rapid for the next few years, yet by the end of 1910 there were 52 treatment works either in operation or in course of construction. By the end of 1930 there were 240 sewage treatment works ranging in size from the small institutional plants to the North East Treatment Works at Philadelphia, built in 1923 and able to handle 60,000,000 gallons of sewage every 24 hours.

One doctrine reiterated during these 25 years is the wisdom of comprehensive planning for communities, either individually or by groups. Considerable success has attended these efforts throughout the Commonwealth, but especially in the Philadelphia and Pittsburgh areas. The most notable, perhaps, is the comprehensive sewerage project of some 34 separate municipalities in Delaware county, where plans prepared by the Delaware County Board of Engineers, of which the bureau's chief engineer was a member, have been accepted. Work is actually proceeding in the consummation of this project. Other similar problems have been solved for metropolitan Pittsburgh and large intercepting sewers have been built. More instances might be cited; but enough have been given to indicate the scope of this work.

To the end of 1930 a total of 2,042 water and 2,374 sewerage permits have been issued—a worth-while record.

A notable event was the creation in 1923 of the Sanitary Water Board, of which the Secretary of Health is chairman and the Department of Health the enforcement agent, the Bureau serving as the investigatory and recommendatory agent of the Board. All matters relating to sewerage, sewage disposal and stream pollution are vested in the Board and comprise a considerable portion of the bureau's duties.

The classification of state waters is one of the Board's basic policies; no small task with Pennsylvania's 100,000 miles of streams. Scientific surveys are made by chemical engineers using mobile laboratories to ascertain the present condition of streams, in order to take the needful steps toward abatement of harmful stream pollution.

To study the effect of industrial and domestic wastes, intensive surveys have been made of the Delaware, Schuylkill, Juniata, and portions of the Susquehanna and Allegheny rivers. These have enabled the Board to determine policies, followed by the issuance of orders to offending municipalities to take steps looking toward the progressive improvement of the streams.

The adoption of cooperative agreements with industries is a forward step in studying their several problems with a view to finding reasonable and practical means of treating industrial wastes, for some of which practical processes are now unknown. As the outcome of one such agreement, after several years' experiment on full plant scale, a satisfactory process has been found for the treatment and the disposal of waste waters resulting from the vegetable tanning of leather.

Agreements have been effected with the following industries: Pulp and Paper Industries, By-Product Coke Works, Manufactured Gas, and Bituminous Coal Mines.

Likewise, because of a community of interest in matters pertaining to stream pollution, interstate agreements have been made between Pennsylvania and all states contiguous, as well as all states on the Ohio river and Great Lakes drainage basins.

Mention should be made of the efforts of the Bureau in the rehabilitation work incidental to the dam failure at Austin, which happened September 30, 1911, took a toll of 77 lives and left in its wake a scene of desolation with the hazards of disease. The engineers restored the public water supply, provided for sanitation of the flood zone, commanded the labor forces engaged in the recovery of the dead, and supervised the distribution of food and clothing.

**Allentown's Sewage Disposal Plant**

The World War gave rise to problems of sanitation in the environs of army camps, especially at Gettysburg, where for weeks bureau engineers supervised sanitation measures in the extra-cantonment zone around Camp Colt.

Incidentally, 13 bureau representatives were granted leave of absence to enter the Army and Navy. Eleven were commissioned in the Sanitary Corps, one in Naval Reserve, and one in Aviation. One of our force, Lieutenant Joseph A. Tinsman, was killed in action in France near the little town of Vaux, while following advancing troops with a water purification truck.

Bureau engineers provided for the safety of the Union and Confederate War veterans at their fiftieth reunion at Gettysburg by assuring the purity of the water supply and caring for the sanitary features of the camps, hospitals, and adjacent territory.

Most recently the drought of 1930 raised problems challenging the Bureau's best efforts. From July to December an unprecedented drought accompanied by high temperatures held the state in its grasp. Streams reached new low flows, wells dried up, and water supplies in a number of instances actually failed. This event is too recent to need elaboration; but the emergency may be appreciated when it is noted that in 48 counties, 125 communities were obliged to use either auxiliary or emergency supplies, or both, and in 41 counties, 96 places were forced to secure new supplies and use them for several months.

These had to be protected. That this was done effectively, is gratifyingly demonstrated by the fact that no typhoid fever outbreak could be attributed to any normal or emergency public supply.

The five mobile laboratories rendered invaluable service, providing for the prompt examination of water in communities and in the country. They worked in 40 counties and analyzed over 5,000 supplies.

A growing public consciousness of the need of water supplies unfailingly safe and of environmental cleanliness is perhaps the best reward for 25 years of unremitting work along these lines.

## MILK CONTROL

### Ralph E. Irwin

*Chief, Bureau of Milk Control*

PRIOR to 1919 investigations in connection with public milk supplies were made only when an epidemic occurred where the cause was thought to be traceable to milk.

Each year there was an apparent increase in epidemics of contagious disease directly traceable to milk-borne infection. Because of this, the necessity of some action to protect milk consumers seemed imperative. There were no state regulations concerning milk sanitation. State legislation, however, did enable each municipality to provide for milk control but only in a few instances had this authority been used. It was deemed advisable, therefore, to establish in the Engineering Division a section of milk control. In the beginning the personnel of this section comprised one person, Ralph E. Irwin.

The duty of this section was to secure information pertaining to milk sanitation in the Commonwealth, urge municipalities to assume the responsibility delegated to them and assist in formulating practical local ordinances where such assistance was desired. It was believed there were regulations which were fundamental in all milk control and that an effort should be made to bring about uniformity in the regulations adopted by communities assuming the responsibility of control.

It was thought complete milk control should include not only milk delivered by the distributor for household purposes but also milk for condensing, drying and for the preparation of milk products such as ice cream, etc.

The milk control section was directed to confine its activities to the market milk problem which dealt principally with milk distributed daily to the householder and public eating places. It was thought the control of a milk supply should begin at the point of production, the dairy farm, and follow the supply until the consumer was served and might even extend to the care and use of milk in the home.

It was then found that an important factor in the production of clean safe milk was the eradication of tuberculosis from the dairy herd. This was considered possible. It was decided that milk not known to be free from tubercular infection should be pasteurized. Pasteurization meant heating the milk to 145° F., and holding at that temperature for 30 minutes. Early in 1920 a proposed milk ordinance was prepared for the use of cities, boroughs and first-class townships. At the close of 1920 a conference of representatives of milk producers, milk distributors and others interested in safe milk held a session. Another session was held in January, 1921, at which time a proposed Act was decided upon.

During the biennium, 1921 and 1922, a second person was added to the personnel of this section.

On April 4, 1923, the Advisory Health Board of the Department approved the first regulations in Pennsylvania dealing with safety in the production and handling of milk in its relation to public health.

The division of milk control carried on its campaign for better milk principally through educational methods. This entailed many conferences with borough councils, boards of health, various civic organizations and addresses in public meetings. A third member was then added to the personnel of the division.

In 1924, after the Secretary of Health had issued an invitation to all boards of health in the state to send a representative to Harrisburg to discuss milk problems confronting the local officials, a meeting was held and attended by representatives of 75 boards of health. This meeting resulted in the organization of the Pennsylvania Association of Dairy and Milk Inspectors. This Association decided to hold annual meetings for the purpose of discussing problems in milk control work.

In 1925, a small truck was purchased and fitted with the necessary equipment for use in testing milk to improve the quality and determine the safety of same. This laboratory proved of such value that an additional and larger one was secured in 1926. Municipal officials welcomed the services rendered by this laboratory and many requests for this service reached the division.

The Operator Has His Throat Examined Regularly

In 1926, a new method of pasteurization known as the Electropure Process was tested under commercial conditions. This process of milk treatment was approved by the Advisory Health Board of the Department of Health. Special permits issued by the Secretary of Health were required for the use of this process.

Encouragement was given to municipalities in setting up milk control districts. To do this municipalities combined their resources and engaged the services of an expert milk inspector to devote his time to a careful survey and check of methods used in producing and distributing the milk in order to assure a safe milk supply at all times. Such districts were established only after the Department's representative had made a careful check of all the essential data in the district pertaining to the milk supply.

The division of milk control of the Bureau of Engineering was made a bureau, October 22, 1929.

Up to this time milk control work had been carried on under the Advisory Health Board regulations approved April 4, 1923.

Act No. 428, approved May 2, 1929, was the first law in the state providing for the inspection of all public milk supplies. This legislation does not centralize control in the state. It is rather a "leveling act" seeking to bring about uniform and practical regulations.

The purpose of Act No. 428 is to provide the consumer with a clean safe milk and promote the use of milk. Those who wrote the Act deemed it advisable to indicate so far as possible the quality of milk desired and give only general directions concerning methods and equipment.

The law is specific when it requires that milk sold to the consumer as "raw milk" shall be from cows that have been tuberculin tested according to the "Individual Accredited Herd Plan" or the "Modified Accredited Area Plan." Again the law is specific when it requires each dairy farm to have a milk house or a milk room used exclusively for the handling of milk. However, the location, size and construction of the milk house or milk room is given in general terms. When advice is requested concerning compliance with general requirements, an effort is made to indicate how others have been successful under conditions similar to those of the producer or distributor making inquiry.

It is the desire of the Secretary of Health to assist applicants for permits in their desire to comply with the requirements of the law. To do this the Commonwealth has been divided into districts. In each district there resides a milk control officer trained in dairy farm and milk plant work.

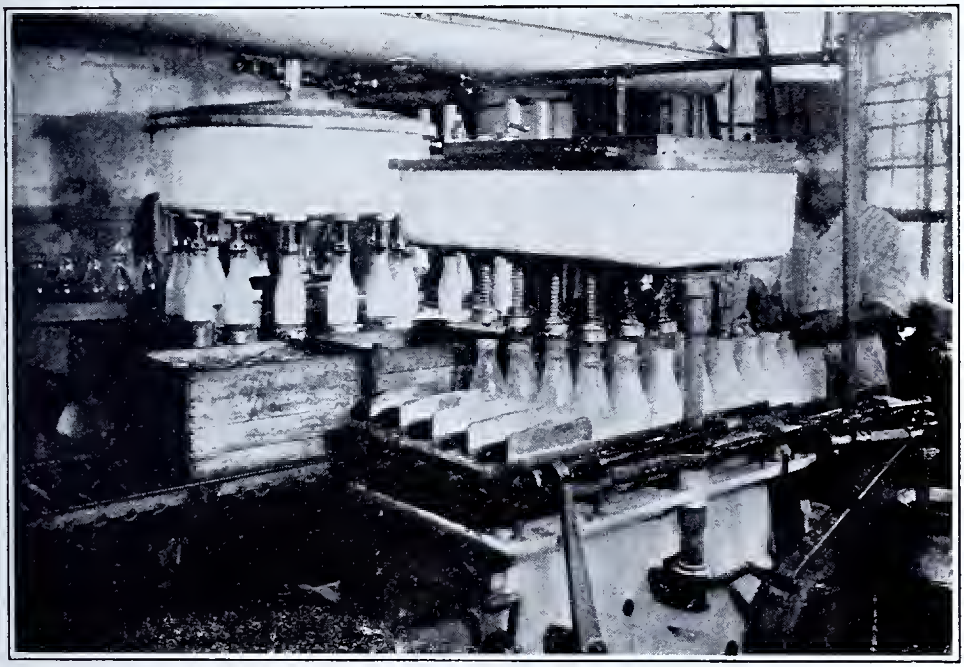
The new law requires a milk house or a milk room which is properly constructed, lighted, ventilated, drained and clean for use in handling milk on farms from which milk is sold either as raw milk or for pasteurization. This is a new requirement in Pennsylvania and hundreds of requests were received soon after the passage of the law concerning the construction, location, etc., of milk rooms.

When milk is produced and bottled on the farm for sale to the consumer as raw milk the representatives of the Bureau advise the producer-distributor to construct a milk house having at least two rooms so that one room may be set apart for the cooling and bottling of the milk and for the storage of cleansed containers.

Very few pasteurizers throughout the state were equipped with indicating thermometers. This requirement of the new legislation has brought about the purchase of many indicating thermometers. We may now expect recording thermometer records to be correct as the indicating thermometer, according to the law, is to be used daily in checking recording thermometers by the person responsible for the pasteurization of the milk.

Much progress is being made by the State Department of Agriculture in the eradication of bovine tuberculosis. Bovine tuberculosis has been reduced to less than one-half of one per cent in 29 counties.

Eight additional counties have been completely tested but the presence of infected animals has not been reduced to less than one-half of one per cent which is necessary to qualify under the Modified Accredited Area Plan. The Bureau of Animal Industry reports that on January 1, 1930, a total of 133,278 herds consisting of 1,008,434 cattle which is 75 per cent of the cattle population of Pennsylvania were under official supervision.



**The Milk is Not Touched by Human Hands**

Each applicant for a state permit to sell raw milk is visited by the district milk control officer. The purpose of this visit is to assist the applicants in every way possible in complying with the requirements of Act No. 428. It is desired that the applicant for a permit will look upon the Bureau's district representatives as persons competent and willing to assist them in meeting the requirements of the new law rather than as officers whose duty it is to prosecute those who do not comply. As far as known Pennsylvania is the first state to attempt the supervision of small milk supplies.

Apparently the most difficult task at present is keeping dirt out of the milk and the use of sufficient heat in the cleansing of containers to make them safe for milk. The supervision of small milk supplies is becoming more important each year as our urban population takes up its residence along the improved highways or spends its summers in the country. The distributors of small volumes of milk are not objecting to the law but are requesting information concerning what they should do and a reasonable length of time in which to meet the requirements.

The Department of Health has direct supervision over milk supplies sold in townships of the second class. The population of these townships is slightly over one-fourth of the total population of the state. Small municipalities—in fact the majority of those under 5,000 population—have difficulty in carrying on adequate milk control unless adjacent to other and usually larger municipalities with which they may cooperate.

The distributor of large volumes of pasteurized milk usually has trained sanitarians in his employ and does not depend upon assistance from this Department.

Requests, however, have been received from several hundred distributors of small amounts of pasteurized milk. Many pasteurizing plants are being rebuilt or enlarged to meet the requirements of the law. This group is reached more easily than the raw milk distributor. They are located near our centers of population and are usually on an improved highway. Also we are able to reach this class through the literature and meetings of the Pennsylvania Association of Dairy and Milk Inspectors.

During the State Farm Show, in January, 1930, the Pennsylvania Association of Dairy and Milk Inspectors held its annual meeting. At some of its sessions more than 400 were present. Two thousand annual reports giving the papers presented at the annual meeting were distributed. These reports are placed in the hands of many of the raw milk distributors.

Milk and cream for household purposes is entering the Pennsylvania markets in ever increasing amounts. Interstate shipments are welcomed by producers and distributors organizations when meeting Pennsylvania requirements for quality. However, cream from centralized creameries in the states of the central west is frequently prepared from milk or cream of inferior grade. Reports indicate the use of neutralizers and cultural processes to cover inferior products. Unfair competition of this kind may be largely regulated by the enforcement of Act No. 428.

# MONT ALTO

### R. H. McCutcheon, M. D.

*Medical Director*

A RECORD of the progress of the State Sanatorium, South Mountain, Pennsylvania, for the past twenty-five years is really a record of the planning and construction of this institution from almost its very beginning. Although the Department of Health did not assume control until 1907, the actual beginning of the Sanatorium dates from 1902, when Dr. J. T. Rothrock, first Commissioner of Forestry, spent a number of months camping in a white-pine grove close to the present location in company with three other gentlemen from a neighboring county.

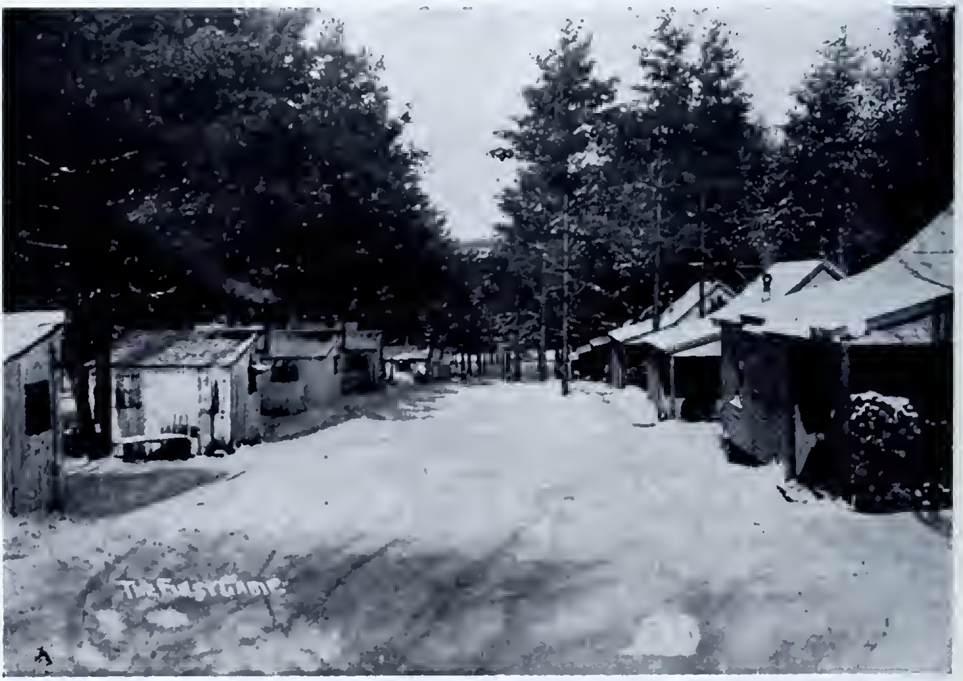
It happened that one of the party was an asthmatic, and he found the location of the camp so suitable for the improvement of his condition that a little cabin eight feet square was erected for his comfort during the winter months.

The Beginning of Mont Alto

It occurred to Dr. Rothrock that this might be an excellent place for the construction of a camp of similar shacks for the treatment of tuberculosis. Eight other cabins, each ten feet square, were built during 1903 for the benefit of those suffering with tuberculosis, who desired to camp on state land at no expense except that of food and clothing. These first shelters were constructed with money contributed by private individuals.

At the 1903 session of the legislature the sum of $8,000.00 was appropriated for the "erection and maintenance of a consumptive camp at Mont Alto." The original location of this camp proved too low for rainy weather, so a new site was selected on higher ground and across the road from the original site. Clearing was made in the pine grove, and an assembly building, an office building, six cottages each of three rooms and two porches, and a spring house were built. The original cabins were hauled over to this location on skids and put in a row with the new cottages. Two more cabins were also added during the year bringing the total capacity of the little camp up to twenty-six patients and a few additional employes who had to live on the grounds.

During the next year, 1904, Dr. Rothrock started a private sanatorium on a tract of personally owned ground of about fifty-seven acres, and separated from the State Tuberculosis Camp by nearly a quarter mile of woodland. Here Dr. Rothrock cared for from twenty to thirty private patients, who were able to pay for at least a part of their maintenance.



The First Camp

This private venture was called the "Mountain Side Sanatorium," and remained under the ownership of Dr. J. T. Rothrock until 1907, when this property was purchased by the Commonwealth, and the ground on which the original "State Consumptive Camp" was located was transferred from the control of the Forestry Department to that of the Department of Health.

These two camps were located in Franklin county in the midst of a State Forestry Reservation comprising about 55,000 acres. The Mont Alto Forestry Reservation extends about three miles to the south of the Camps, and the Michaux or Caledonia Forestry Reservation extends nearly twice that distance to the north of the Camps. The altitude is 1,650 feet above sea level, and the Camps were located on the eastern slope of the mountain, the hills rising up like the sides of a basin some

300 or 400 feet above it. This basin is opened up by mountain passes to the southwest, northwest and east, is well wooded and watered, and has a sparse collection of houses scattered over its area. Summer temperatures are seldom oppressive, and the air during hottest days is invigorating, while the nights are usually cool.

These camps were started as more or less of an experiment in the treatment of tuberculosis, as sanatorium treatment twenty-five years ago had not been conceded its present importance in the fight against the white plague. Tuberculosis at that time ranked first as the cause of death, and there were few who believed that the disease was really curable. During the first five years of the existence of the State Tuberculosis Camp it was definitely proven that consumption could be cured, or at least arrested in the mountains of Pennsylvania under the proper conditions of rest, fresh air, good food and hygienic living.

By Act of Legislature approved June 1, 1907, the Commissioner of Forestry was authorized and directed to transfer to the Department of Health the Mont Alto Sanatorium. Under the Act of May 15, 1907, providing for the establishment and maintenance of one or more sanatoria or colonies for the free care and treatment of indigent persons suffering from tuberculosis, the Commissioner of Health directed that preliminary surveys should be made for a new tract of land of not over 500 acres within the boundaries of the State Forestry Reservation in the vicinity of the State Camp at Mont Alto. This tract of 500 acres, together with the 100 acre tract on which the original camp was located, represents the area now occupied by the present State Sanatorium, although one or two minor additions have been made during the last twelve years.

It is interesting to note the scope of the planning of the first Commissioner of Health, Dr. Samuel G. Dixon, as seen from his report for the year 1907, in which Dr. Dixon conceived the possible development of an "entirely new institution to accommodate possibly 3,000 patients."

From this time on the construction of such large buildings as the infirmary building to house more than 200 bed patients, a children's hospital to accommodate 80 patients, a dispensary building for incipient cases and to provide space for an operating room, a diet kitchen, waiting rooms for patients, physicians' examining rooms and nurses' offices, a main dining room building for ambulant patients and the 70 cottages each to accommodate eight patients was carried on as rapidly as possible, and was practically completed by 1912.

It is interesting to note how the capacity of the institution increased during these years of construction. From the original twenty-six patients accommodated in 1903, we find on June 1, 1908, there were 133 patients under treatment, while on June 1, 1909, there were accommodations for 500 patients. It was evident that construction could not keep pace with demands for sanatorium beds, and it was necessary during 1909 and 1910 to erect numerous tents with board floors and coal stoves for heat, which brought the total census up to 753 by May of 1910. By the end of the year 1912 the capacity had been increased to 960, which is practically the capacity of the sanatorium at the present time, June, 1931.

Since the Department of Health took charge of this institution, 34,788 patients have been admitted. There has been practically no change in the age group of patients during the past twenty-five years, as the largest number of adult patients are in the age period from twenty to twenty-four years today, as has been the case during the greater part of the history of this institution.

As this period of twenty-five years has been one of great advancement in medical science, it is only natural that the sanatorium today contains many of the facilities for more accurate diagnosis than existed at its beginning. While there has not been any marked change in the general treatment of the ambulant case of tuberculosis, such special treatment as pneumothorax, heliotherapy and phrenicotomy have become a matter of routine for a relatively large number of patients. More accurate diagnosis has been made possible by the greater perfection of the X-ray machine, and the improvement of laboratory technique. The use of tuberculin, which was first instituted in this country by Dr. Samuel G. Dixon at Mont Alto for the treatment of pulmonary tuberculosis, has now only a limited sphere of usefulness in well selected cases. But the use of tuberculin has been widely extended as an aid in the diagnosis of tuberculosis in childhood.

Morning Lunch at the Children's Hospital

It is only natural that after twenty-five years many of the buildings of the sanatorium, all of which are of frame construction, have about outlived their usefulness. Consequently their replacement by the more modern brick, steel and concrete buildings was begun during the last biennium. A comprehensive plan for the replacement of all of the present sanatorium buildings has been approved, and as money is made available at the various sessions of the legislature an institution of fire-proof construction and of entirely different design and plan will replace the present one laid out on the cottage plan. As the necessity for rest is being stressed more today than it was twenty-five years ago, it is only natural that the new buildings should be planned to give a maximum of rest with more of the modern conveniences and more comfortable living quarters for the patients.

It is probable that the work of the Preventorium and Children's Hospital is of equal importance to that of the main sanatorium, and it is believed that the improvement of the general health of the child who has been in contact with tuberculosis in the home will in the majority of cases prevent adult tuberculosis. The present Preventorium has for the past seven years paid special attention to the childhood type of tuberculosis. It is thought that the further reduction of the death rate from this disease will be accomplished more rapidly by greater attention to the disease in childhood.

The Commonwealth of Pennsylvania owes much to Dr. J. T. Rothrock, the first Commissioner of Forestry who, a physician himself, appreciated the beneficial effects of pure air at a reasonable elevation, and who originated the sanatorium idea of treatment in this Commonwealth. But more especially does the Commonwealth owe a debt of gratitude to Dr. Samuel G. Dixon, the first Commissioner of Health, for the organization of the fight against tuberculosis and his wise planning of the campaign against this disease, which included the construction of the three large state sanatoria and a system of clinics which extends throughout the Commonwealth. It is due principally to Dr. Dixon that Pennsylvania enjoys a much lower death rate from tuberculosis than the majority of other states in the Union, and that there are available to the indigent citizens of this Commonwealth reasonably adequate facilities for the treatment of this dread disease.

# CRESSON

## T. H. A. Stites, M. D.

*Medical Director*

THIS institution is located on the crest of the main ridge of the Allegheny mountain at an elevation of approximately 2,500 feet. The General Assembly of 1909 included an item in the appropriation bill for the construction and maintenance of a tuberculosis sanatorium. And the Governor and Commissioner of Health, acting on this authority, proceeded to select the site and secure the land. The property selected was owned by Mr. Andrew Carnegie, who on being approached, offered to present the same to the state free of charge. Acceptance of the gift was authorized by the legislature of 1911 and the construction of the sanatorium proceeded. The first patients were received in December, 1912. Subsequently, additional beds were provided until in 1924 the institution's capacity reached a total of 720.

**These Boys Enjoy Winter's Cold**

The sanatorium is fitted for the treatment of persons suffering from pulmonary tuberculosis in all stages of the disease. In the adult department there are 260 beds suitable for ambulant cases and 220 for hospital cases. There are 240 beds for children between 6 and 16 years of age. This capacity will be augmented during 1931 by the construction of a new unit authorized by the General Assembly of 1929, leading to an increase of 60 beds for adults and 60 beds for children, making a total capacity of 840.

During the year 1913, 613 patients received treatment. During the year 1929 there were 985 treated.

The grounds comprise approximately 500 acres, largely woodland. Immediately surrounding the institution buildings there are approximately 100 acres devoted to strictly institutional purposes.

The institution has its own water supply system although a considerable quantity of water has to be purchased from a local water company. All sewage is treated in a modern disposal plant.

General farming was tried but abandoned as being unduly expensive. A pig farm, however, is still maintained as is a chicken farm, both contributing to the reduction of maintenance costs.

It is believed that the present buildings and grounds have a value considerably in excess of $2,000,000.

Cresson Sanatorium is one of three maintained by the State Health Department and draws most of its patients from the counties comprising the western half of the state. Some patients, however, are received from other counties.

**A Snow Scene at Cresson**

In late years probably the most marked thera peutic change at the institution has been the greatly increased number of patients treated by induced pneumothorax, a considerable number treated by excision of the phrenic nerve, and a few treatments by the more formidable method of thoracoplasty. There has also been a considerable increase in the equipment of our clinical laboratory, permitting a more scientific method of examination and treatment.

The Nurses' Training School, formed in 1920, continues to function, and has supplied us with a highly efficient corps of ex-patient nurses. The fact that these nurses have themselves gone through the process of treatment, enhances the value of their work, as they know from experience many of the points upon which patients expecially need assistance. It is gratifying to record that also a considerable number of our nurses are holding or have held important positions in other institutions.

Forced feeding which was such a prominent feature of treating tuberculosis twenty years ago, has been to a very considerable extent abandoned in favor of a rational diet comprising three full meals daily, with an extra luncheon in the evening. Other extra luncheons are prescribed by the physician if the patient is decidedly underweight or presenting other features which seem to call for extra nurishment.

Experience indicates even more strongly than ever before, that in the presence of clinically active tuberculosis, the principal curative agent is strictly enforced rest, the degree of rest being gradually modified to suit the amount of intensity of the clinical activity of the disease.

More than 19,000 patients have been treated at this sanatorium since it has been opened to the public.

## HAMBURG

### Henry A. Gorman, M. D.

*Medical Director*

THE Hamburg State Sanatorium was opened in October, 1914, and since that time has admitted more than fifteen thousand cases. This was the third sanatorium built by the Department and was intended primarily to care for patients from the eastern section of the Commonwealth. The units are of a hospital type consisting of wards of twenty bed capacity, which construction was adopted for treatment of both the ambulatory and bed patient.

Doctor Thomas H. A. Stites was medical director from the opening until August 1, 1920. From that date until the present, Doctor Henry A. Gorman has occupied this position.

A Group of Nurses at Hamburg

The medical work is carried on by a staff of resident physicians and graduate nurses. A visiting staff of specialists comprising laryngologist, dentist, roentgenologist and surgeon supplement the resident staff. In addition to the usual sanatorium treatment, special therapy such as pneumothorax and heliotherapy is applied. The idea has been not only to treat the patient's physical condition, but to make his stay as pleasant as possible. Therefore, motion pictures are shown at regular periods, and other diversions are made available.

Much of the work about the hospital building is performed by patient labor, who are started off with light duties and small compensation. As their condition improves they are given harder tasks. It is interesting to know that of the total number of two hundred and fourteen employes now working, ninety were patients.

The institution also maintains a Nurses' Training Class giving a two-year course to patients in proper physical condition.

The institution is a complete unit in itself, with its farm of two hundred and ten acres, its water treatment and disposal plants, piggery, laundry and repair shops. Power, light and heat are made on the grounds. The sanatorium has a patient capacity of five hundred and twenty.

Among the additions and major improvements effected since the opening of the institution may be mentioned the construction of a Community Hall, with a seating capacity of seven hundred people, built in 1923. This provides facilities for religious services, social affairs and entertainments. A sun parlor with a capacity of fifty chairs was recently constructed.

**The Community Hall**

At the farm a modern hennery patterned after the State College model was built during the last few years. In 1920, a pasteurizing plant was installed and all milk has been properly treated since that time.

# HISTORY OF THE DEPARTMENT'S LABORATORIES

## John L. Laird, M. D.

*Chief, Bureau of Laboratories*

IN the development of the Department of Health, it became necessary to establish a state laboratory scientifically to guide the Department in its policies and activities and to act for the Department in the diagnosis, handling and, therefore, prevention of disease through the Commonwealth.

In 1906, such a laboratory was established at Philadelphia in the University of Pennsylvania, under the direction of Doctor Herbert Fox. Drs. Allen J. Smith and Damaso de Rivas assisting in pathology and bacteriology, respectively. The examinations made consisted of blood for malaria, widal reactions, sputum examinations, bacteriologic urines, pathologic fluids and growths, milk, butter and water analyses, feces, diphtheria and miscellaneous tests.

From 1906 to 1911, under Doctor Fox, much of the work of the laboratory was devoted to scientific studies in the diagnosis, treatment and prevention of tuberculosis, diphtheria and typhoid fever, and in the examination and regulation of water supplies. The number of tests gradually increased during this period to 15,418. The laboratory staff at this time consisted of sixteen members.

During 1911, Doctor Fox resigned and Dr. David H. Bergey and Dr. Samuel H. Gilliland were appointed successively, holding office until 1912. Dr. J. J. Rucker was then appointed director, held office until 1919. The laboratory at this time was located at 2000 Arch Street, Philadelphia.

The tests during this period ranged from 15,000 to 28,000, in 1918 falling to 18,000. Much of the work was aimed at tuberculosis and typhoid control, water analysis and studies in disinfection. An unsuccessful but strenuous effort was made to determine the etiology of anterior poliomyelitis and the staff consisted of twenty-six members.

In 1919, the laboratory was reorganized under the direction of Dr. John L. Laird, the present director. It was moved from 2000 Arch Street to the University of Pennsylvania and located in the Hygiene Building at 34th and Locust.

With the reorganization and changes in methods, staff and locality, the laboratory demand rapidly increased, rising in specimens examined from 31,521, in 1919, to 119,745, in 1930. The examinations at this time consisted of Wassermann reaction, Widal reaction, blood chemistry, sputum, bacteriologic urines, pathologic fluids and growths, milk and water analysis, feces, diphtheria, smears for gonococci, typhoid dysentery cultures in dairy control and quarantine, and miscellaneous tests. During this period the staff varied from twenty-six to thirty-five members.

Research work accomplished much in the control of tuberculosis, typhoid fever and diphtheria. In 1923, the first field or motor laboratory was constructed, for the purpose of guarding public health by examining the water supplies along the traveled roads of the State and investigating directly all epidemics. The method was so successful that these field units have been increased as rapidly as possible, five being in the field continuously during the last year. In 1925, blood chemistry was successfully undertaken in the laboratory and has grown accordingly. The general and continuous increase in laboratory demand proves not only the worth of the work but the necessity for such scientific control. During the serious drought of 1930 and 1931, ten emergency workers were added to the staff. The work of the motor laboratories in the field and these added facilities in the main laboratory were responsible for holding any resultant disease to a minimum.

**Making a Microscopic Examination**

The above historic growth of the Bureau proves that the Pennsylvania Department of Health Laboratories has to a degree successfully fulfilled its three paramount duties: diagnosis, guidance of treatment and consequent prevention of disease.

# VITAL STATISTICS

### Emlyn Jones, M. D.

*Chief, Bureau of Vital Statistics*

VITAL statistics records for the Commonwealth cover the years since 1906 when state-wide registration was commenced. These reports indicate that considerable progress has been made in many endeavors of public health workers. Just what has been accomplished can be illustrated best by the birth and death figures for this period.

In 1906, there were 167,265 children born in the state. In 1930, the number was 189,573. Although this indicates an actual gain, the rates show a constant decline. The 1906 rate per 1,000 population was 23.4. The peak was reached in 1914 (27.0) and a gradual decrease has brought the ratio for 1930 to 19.6. This diminution is not confined alone to Pennsylvania for the entire United States Registration Area is experiencing a similar loss.

Stillbirths, which are considered separately from both natality and mortality statistics, have diminished correspondingly. Twenty-five years ago there were 8,679 stillbirths with a rate of 51.8 per 1,000 live births, and in 1930 the total was 7,957, giving a rate of 42.0.

It is interesting to note the change in the ranking of the leading causes of death during this interval. Tuberculosis (all forms) held first place in 1906. By 1910, it had dropped to third; 1925 found it in sixth, the position it maintained in 1930. Heart disease gained the lead in 1915 where it has remained with a few exceptions. Nephritis, cerebral hemorrhage, pneumonia, diseases of early infancy and cancer, although varying in order, always have been among the seven most important causes of death.

With the exception of 1918 when the severe influenza epidemic resulted in an unusually high toll, the all cause death rate has declined steadily from 16.0 per 1,000 population in 1906 to a preliminary rate of 11.6 for 1930. The reasons for this are to be found in the control which has been exercised over certain diseases. By the use of antitoxin, toxin-antitoxin and the more recently developed toxoid, the diphtheria mortality has been lowered from 34.1 per 100,000 population (1906) to 5.2 (1930). Due to smallpox vaccine, deaths from that cause are rare—only one since 1925. Because of strict vigilance over quarantine and the wide-spread education of the people concerning communicable diseases, the losses from measles, scarlet fever and whooping cough have decreased. Since the sources of milk and water supplies have been carefully supervised and inspected, the disorders which are spread by such carriers have been restricted. Typhoid fever has been reduced from 54.8 per 100,000 population in 1906 to 2.6 in 1930. Diarrhea and enteritis, under age two, has also fallen from 137.2 to 23.3 per 100,000 population.

The reduction in the infant mortality rates show that the lives of many babies have been saved. In the first year of state-wide registration, 27,908 children under age one died, as compared with 12,887 in 1930. The rates of 167 per 1,000 live births for the former year and 68 for the latter is more indicative of the true gain. This has been possible through the efforts made in combatting the diseases of early infancy and those of the gastro-intestinal group, principally dysentery and diarrhea and enteritis.

Great progress has been made in the respiratory class, most important of which is pulmonary tuberculosis. From this cause, there were 9,258 deaths with a rate of 129.6 per 100,000 population in 1906, which by 1930 had been lessened to 5,295 with a rate of 54.0. This is a definite tribute to the work of the tuberculosis sanatoria, clinics and preventoria. Pneumonia (all forms) and bronchitis have responded also to the attacks made against them. On the other hand, the trend of influenza has been slightly upward.

Safety propaganda, together with the development and use of safety devices has been responsible for the decreasing rate for accidental deaths. Considerable part of this is due to the reduction in mine and quarry disasters. The highest rate recorded for deaths from that source 21.2 per 100,000 population in 1907, the lowest, 8.2 in 1930. The rate for fatal railroad injuries has dropped from 30.2 in 1906 to 5.4 in 1930. The automobile rate, however, has not responded so noticeably for it is an increasingly important factor in the general death rate. In 1906, there were 19 killed, with a rate of .3 per 100,000 population. Since that time because of better roads and cheapness in production, motor vehicles have become more numerous and incidentally more dangerous, so much so that in 1930, 2,424 persons lost their lives as a result of automobile accidents. This gave a rate of 25.1. These figures call for more emphasis to be placed upon "Safety First" than heretofore.

The degenerative diseases have been steadily climbing upward. Heart disease, the leading cause of death, has increased from 133.5 per 100,000 population in 1906 to 239.1 in 1930. During the same period, cerebral hemorrhage has risen from 73.1 to 85.5; cancer from 58.9 to 100.0; nephritis from 84.3 to 104.3; diseases of the circulatory system exclusive of heart disease from 16.2 to 30.3 and diabetes from 10.5 to 22.4.

Maternal mortality has maintained an even trend over the twenty-five years under consideration. In 1906, 1,213 women died from causes associated with childbirth. In 1930, there were 1,127. The rates were 6.9 and 5.7 per 1,000 total births, respectively. A large proportion of these deaths were due to puerperal septicemia—39.2 per cent the first year and 37.4 per cent the last.

In general, the facts given are gratifying and informative of the progress made. They should serve also as incentives to further the work which has been started.

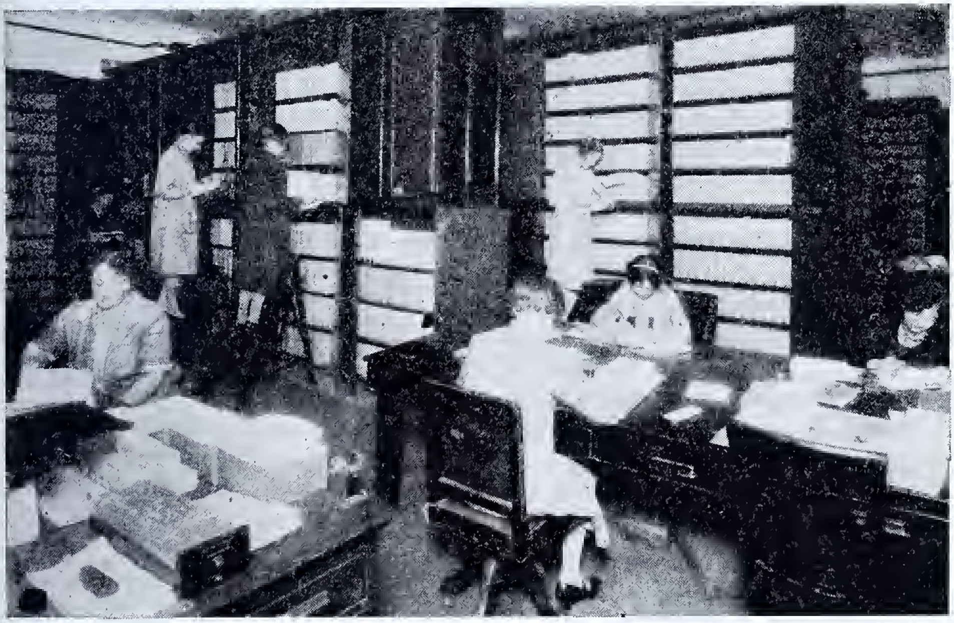
## Twenty-Five Years of Registration in Pennsylvania

January 1, 1931, marked the Twenty-Fifth Anniversary of the establishment of the State Bureau of Vital Statistics in Pennsylvania.

This State, though one of the first officially to recognize the value and importance of those vital statistics embraced in the subjects of births, deaths and marriages, had in operation no adequate system of registration until that time. As early as 1851 there had been an enactment, with further legislation in 1885 and 1893. On May 1, 1905, the present Registration Act was passed, and Pennsylvania became the first State to adopt what was known as the "Model Vital Statistics Law."

The new act provided for the filing of birth certificates by the physician or other person in attendance, and charged undertakers with the duty of securing and supplying completed certificates of death; such records to be filed with local registrars throughout the state, who in turn should forward them to the State Registrar at Harrisburg for permanent filing in his custody. The registration of marriages was provided for in the Act of April 27, 1905, creating the State Department of Health, in which Department the Bureau of Vital Statistics was placed, and the plan of obtaining these records from county offices was adspted.

The measure of the new law's success may be gauged from the fact that on July 13th of the first year of its operation Pennsylvania was formally included in the United States Registration Area for Deaths, then representing but fifteen states. And it was one of the states eligible for admission into the United States Registration Area for Births created in 1915.



**There are Millions of Records in These Files**

On May 10, 1905, Dr. Wilmer R. Batt was commissioned State Registrar of Vital Statistics, at once taking up the duties of the office. To the excellence of the work of Doctor Batt, in the Bureau's organization, and in its leadership through a long period of service, achievement is the strongest testimony. His was the vision and his the accomplished task of placing Pennsylvania in the front rank of registration attainment.

Dr. Batt served as State Registrar until August 1, 1925, when he was succeeded by Dr. Russell B. Tewksbury. The latter held the office until June 1, 1927, Dr. Emlyn Jones, now State Registrar and Chief of the Bureau, receiving his appointment at that time.

As an indication of the volume of work of the Bureau, it may be of interest to give the following figures, showing numbers of records filed during the first year and the totals in the care of the State Registrar at this time:

| *Years* | *Births* | *Deaths* | *Marriages* |
|---|---|---|---|
| 1906 | 167,265 | 114,435 | 59,327 |
| 1906–1930 (approx.) | 5,200,000 | 3,000,000 | 1,710,000 |

It may be stated also that while in 1906 there were twelve persons on the office force at Harrisburg, there is now a personnel of seventy-two; and though three rooms provided sufficient space at the beginning, fourteen are now required. In addition, there are the local registration offices in the cities of Philadelphia, Pittsburgh and Scranton, whose fifteen employees paid by the state are under the Bureau's direct supervision.

The great extent of the Bureau's service to individuals is indicated by the increasing demand for the records, of which over eighty-three thousand certified copies were issued in the year 1930. The issuance of free certificates to all mothers of children born in the state, whereby notification of birth registration is given, forms a valuable and pleasing feature. These notification certificates, sent out since 1924, are furnished in cooperation with the federal government. The Vital Statistics Bulletin, published monthly since January, 1926, and inaugurated by Dr. Tewksbury, has a mailing list of 2,350. The work of supplying the United States Bureau of the Census with transcripts of all birth and death certificates is also performed within the State Bureau of Vital Statistics.

Tabulations of information from the records are made by electric machinery and form the basis of statistical analyses from which not only the quantity but quality of our population may be judged and direction given to wise legislation and action concerning the future of our helpless and immature. Through the medium of such statistics it has been demonstrated that the effort expended in public health affairs has resulted in definitely relieving human suffering, promoting human efficiency and prolonging human life.

With the continued cooperation of all having a part in the promotion of registration, it is the aim of Pennsylvania's Bureau of Vital Statistics to extend even more widely the benefits and services of the state's "vital" records.

## MORTALITY IN PENNSYLVANIA: 1906–1930

| YEAR | Infant Mortality | | Cancer | | Cerebral Hemorrhage | | Diabetes | | Diphtheria | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number | Rate | Number | Rate | Number | Rate | Number | Rate | Number | Rate |
| 1906 | 27,908 | 167 | 4,208 | 58.9 | 5,219 | 73.1 | 747 | 10.5 | 2,438 | 34.1 |
| 1907 | 26,229 | 149 | 4,420 | 60.7 | 5,382 | 73.9 | 842 | 11.6 | 2,138 | 29.4 |
| 1908 | 26,643 | 137 | 4,520 | 60.9 | 5,255 | 70.8 | 895 | 12.1 | 1,970 | 26.6 |
| 1909 | 25,638 | 130 | 4,845 | 64.1 | 5,653 | 74.8 | 904 | 12.0 | 2,002 | 26.5 |
| 1910 | 28,377 | 139 | 5,100 | 66.3 | 5,934 | 77.2 | 986 | 12.8 | 2,235 | 29.1 |
| 1911 | 24,195 | 118 | 5,197 | 66.7 | 6,108 | 78.3 | 1,036 | 13.3 | 2,111 | 27.1 |
| 1912 | 24,110 | 118 | 5,426 | 68.6 | 6,398 | 80.9 | 983 | 12.4 | 2,042 | 25.8 |
| 1913 | 26,304 | 126 | 5,854 | 73.0 | 5,966 | 74.4 | 952 | 11.9 | 2,099 | 26.2 |
| 1914 | 25,146 | 115 | 5,997 | 73.8 | 6,192 | 76.2 | 1,206 | 14.8 | 1,925 | 23.7 |
| 1915 | 23,933 | 110 | 6,202 | 75.3 | 6,740 | 81.9 | 1,303 | 15.8 | 1,632 | 19.8 |
| 1916 | 24,834 | 114 | 6,526 | 78.3 | 7,095 | 85.1 | 1,319 | 15.8 | 1,650 | 19.8 |
| 1917 | 24,703 | 111 | 6,832 | 80.9 | 7,305 | 86.5 | 1,425 | 16.9 | 2,019 | 23.9 |
| 1918 | 28,299 | 129 | 6,697 | 78.3 | 7,315 | 85.5 | 1,322 | 15.4 | 1,784 | 20.8 |
| 1919 | 20,765 | 100 | 7,007 | 80.9 | 7,107 | 82.0 | 1,253 | 14.5 | 1,852 | 21.4 |
| 1920 | 21,415 | 97 | 7,315 | 83.5 | 7,453 | 85.0 | 1,430 | 16.3 | 1,733 | 19.8 |
| 1921 | 20,133 | 88 | 7,588 | 85.7 | 7,649 | 86.4 | 1,539 | 17.4 | 1,983 | 22.4 |
| 1922 | 18,896 | 88 | 7,782 | 87.0 | 7,590 | 84.9 | 1,614 | 18.1 | 1,504 | 16.8 |
| 1923 | 19,639 | 90 | 8,253 | 91.4 | 8,579 | 95.0 | 1,712 | 19.0 | 1,417 | 15.7 |
| 1924 | 17,519 | 79 | 8,425 | 92.4 | 8,717 | 95.6 | 1,710 | 18.8 | 1,059 | 11.6 |
| 1925 | 17,640 | 82 | 8,714 | 94.6 | 8,305 | 90.2 | 1,724 | 18.7 | 973 | 10.6 |
| 1926 | 17,122 | 82 | 9,172 | 98.6 | 8,475 | 91.2 | 1,885 | 20.3 | 800 | 8.6 |
| 1927 | 14,486 | 69 | 9,277 | 98.8 | 8,419 | 89.7 | 1,841 | 19.6 | 840 | 9.0 |
| 1928 | 14,467 | 72 | 9,704 | 102.4 | 8,709 | 91.9 | 2,151 | 22.7 | 841 | 8.9 |
| 1929 | 13,367 | 71 | 9,907 | 103.6 | 8,480 | 88.7 | 2,125 | 22.3 | 689 | 7.2 |
| 1930 | 12,549 | 66 | 9,162 | 94.9 | 8,053 | 83.4 | 2,112 | 21.9 | 490 | 5.1 |

| YEAR | Heart Disease | | Nephritis | | Pneumonia | | Tuberculosis (All Forms) | | Typhoid Fever | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number | Rate | Number | Rate | Number | Rate | Number | Rate | Number | Rate |
| 1906 | 9,533 | 133.5 | 6,022 | 84.3 | 10,218 | 143.1 | 10,780 | 151.0 | 3,917 | 54.8 |
| 1907 | 10,446 | 143.5 | 6,471 | 88.9 | 10,764 | 147.9 | 10,825 | 148.7 | 3,538 | 48.6 |
| 1908 | 9,955 | 134.2 | 6,346 | 85.6 | 10,413 | 140.4 | 10,211 | 137.7 | 2,450 | 33.0 |
| 1909 | 10,464 | 138.5 | 6,695 | 88.6 | 11,207 | 148.3 | 10,122 | 134.0 | 1,712 | 22.7 |
| 1910 | 11,102 | 144.4 | 7,243 | 94.2 | 12,839 | 167.0 | 10,285 | 133.8 | 1,892 | 24.6 |
| 1911 | 11,237 | 144.1 | 7,195 | 92.3 | 10,962 | 140.6 | 10,604 | 136.0 | 1,716 | 22.0 |
| 1912 | 11,887 | 150.4 | 7,523 | 95.2 | 11,598 | 146.7 | 9,872 | 124.9 | 1,310 | 16.6 |
| 1913 | 11,515 | 143.7 | 8,354 | 104.2 | 12,390 | 154.6 | 9,802 | 122.3 | 1,470 | 18.3 |
| 1914 | 12,753 | 157.0 | 8,272 | 101.8 | 12,038 | 148.2 | 10,212 | 125.7 | 1,071 | 13.2 |
| 1915 | 13,377 | 162.5 | 8,692 | 105.6 | 12,435 | 151.1 | 10,638 | 129.2 | 1,034 | 12.6 |
| 1916 | 13,995 | 167.8 | 9,133 | 109.5 | 14,294 | 171.4 | 11,088 | 133.0 | 1,157 | 13.9 |
| 1917 | 14,838 | 175.6 | 10,057 | 119.0 | 16,316 | 193.1 | 11,709 | 138.6 | 901 | 10.7 |
| 1918 | 15,484 | 181.0 | 9,087 | 106.2 | 35,526 | 415.2 | 12,944 | 151.3 | 928 | 10.8 |
| 1919 | 13,060 | 150.7 | 8,469 | 97.7 | 13,616 | 157.1 | 10,327 | 119.2 | 612 | 7.1 |
| 1920 | 14,090 | 160.8 | 8,669 | 98.9 | 15,946 | 181.9 | 9,213 | 105.1 | 503 | 5.7 |
| 1921 | 14,057 | 158.8 | 8,522 | 96.3 | 11,523 | 130.2 | 8,197 | 92.6 | 653 | 7.4 |
| 1922 | 15,271 | 170.8 | 8,743 | 97.8 | 12,105 | 135.4 | 8,018 | 89.7 | 424 | 4.7 |
| 1923 | 17,110 | 189.5 | 9,419 | 104.3 | 14,273 | 158.0 | 7,817 | 86.6 | 447 | 5.0 |
| 1924 | 17,138 | 187.9 | 9,114 | 99.9 | 12,622 | 138.4 | 7,533 | 82.6 | 356 | 3.9 |
| 1925 | 18,745 | 203.6 | 9,871 | 107.2 | 11,918 | 129.4 | 7,300 | 79.3 | 451 | 4.9 |
| 1926 | 20,788 | 223.6 | 10,306 | 110.8 | 12,796 | 137.6 | 7,399 | 79.6 | 357 | 3.8 |
| 1927 | 20,495 | 218.3 | 9,721 | 103.6 | 9,401 | 100.2 | 6,809 | 72.6 | 262 | 2.8 |
| 1928 | 22,529 | 237.8 | 10,605 | 111.9 | 11,561 | 122.0 | 6,767 | 71.4 | 194 | 2.0 |
| 1929 | 22,592 | 236.2 | 10,028 | 104.8 | 10,172 | 106.4 | 6,317 | 66.1 | 199 | 2.1 |
| 1930 | 22,359 | 231.6 | 9,708 | 100.6 | 8,921 | 92.4 | 5,779 | 59.9 | 247 | 2.6 |

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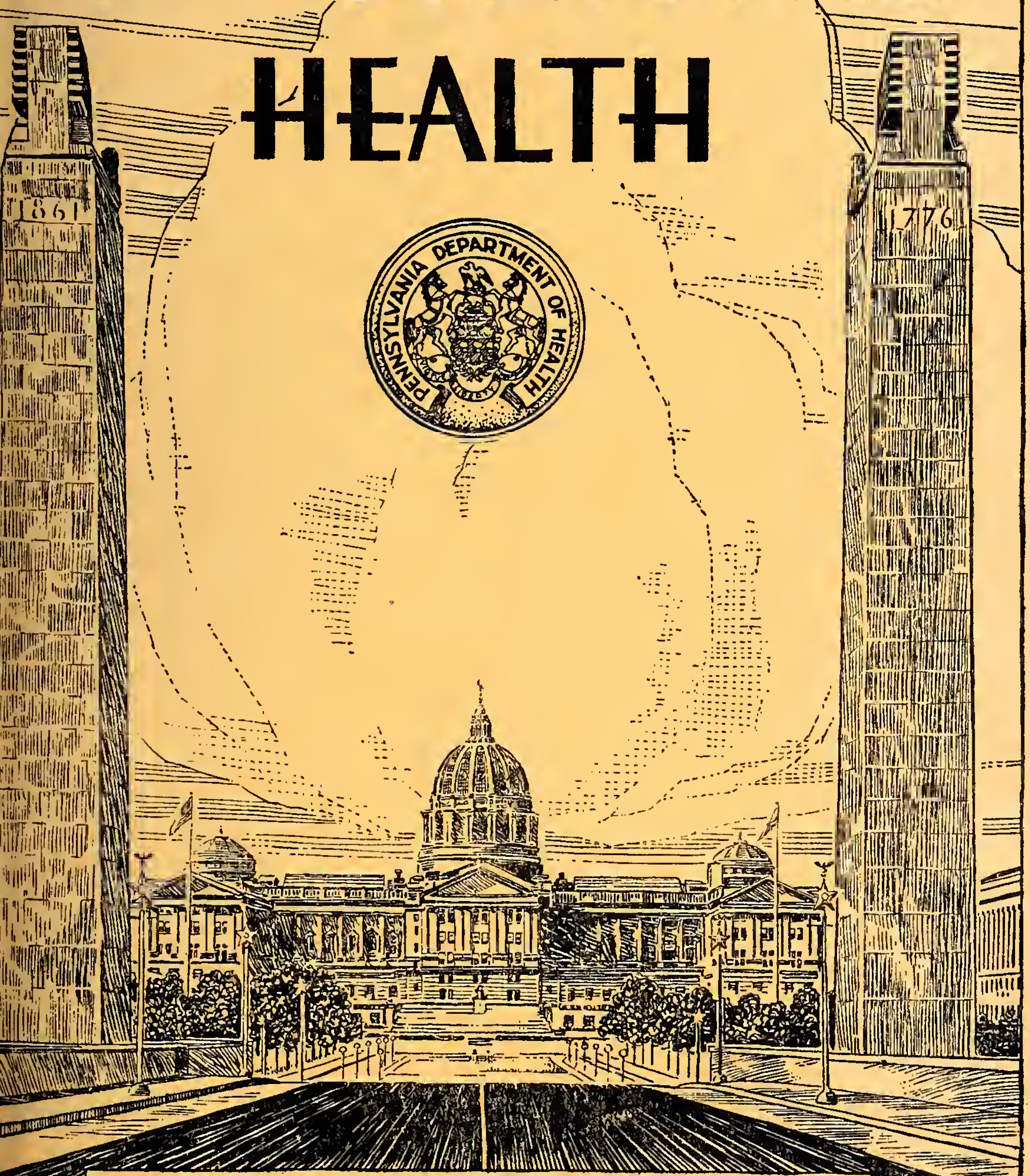
# PENNSYLVANIA'S HEALTH



MARCH—APRIL, 1932

*Special Articles by* **John Ihlder, A. J. Bohl,
H. B. Wood**

P38.9

# Pennsylvania's Health

Official Journal of the Pennsylvania Department of Health

J. CLARENCE FUNK, Editor

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An Intimate Picture at the Crippled Children's Hospital

# Editorial

## PICK-ME-UPS

THE American habit of life with its hurly-burly speed and action has very much to commend it. The fact that the United States occupies an enviable position by reason of its wealth and its consequent high standard of living, is sufficient proof of this statement.

But it must not be forgotten that any attainment demands effort. And effort, if persistently and unwisely expended, develops an inevitable wear and tear. Perhaps no more obvious proof of this fact can be found than in the habitual use by thousands of persons of so-called pick-me-ups.

The driving power of present day work and play has brought frayed nerves and tired bodies to many. Physical let-downs consequently are counteracted by pick-me-ups which take the form of an abusive reliance upon stimulating drinks, tobacco, and unfortunately sometimes even upon drugs.

Somehow, many persons imagine that they can force their bodies as they do their automobiles, merely by feeding gas and more gas. It is little wonder then that both bodies and automobiles are often ruined in the process—with the replacement feature lacking in the former!

The power of free-will thus frequently and sadly backfires. And the foolish who imagined they were quite beyond the ordinary exactions of nature wake up too late, if indeed they wake at all, to discover that the Old Dame is the final arbiter of things physiological.

It follows that to deny the body the essentials of rest, sleep and exercise by compelling it to plod along under forced draft is taking an exceedingly short-sighted view of things, to say the least.

Nature invariably balances her books. She may, and often does, stand for over-drafts. But when the check-up is made, one who has disregarded her dictates is likely to find himself irretrievably in the red.

Therefore, it might be valuable to many were they to reflect seriously on their over-use of stimulants, promptly mend their ways, and then employ for pick-me-ups only those things designated by nature for that purpose. Why trust false gods?

J. C. F

# HOUSING AND HEALTH*

**John Ihlder**
*Executive Director*
*Pittsburgh Housing Association*

IN the medical profession the pendulum swings over quite as wide an arc as it does in any other. And then, perhaps, it swings back again. Since the days when bleeding of patients gave us a figure of speech, there has been a wide variety of belief and of practice. Recently there has appeared a statement that those altruists who have been giving their blood to others find that their own health has benefited. Incidentally, it is interesting to note how often altruism pays.

I believe that there has been a recent tendency on the part of the public health pendulum to swing forward—following a backward movement. A number of years ago, I encountered representatives of public health work who were quite definitely of the opinion that their profession should free itself of all other activities and devote its attention exclusively to the control of contagious and infectious diseases. This was a severe blow to us housing workers, for we believed, and continue to believe, that good housing and good health are very closely related. So believing, we had come to look upon the public health officer as our natural ally.

Now, if I am rightly informed, the pendulum is again swinging forward, the public health officer recognizes that he is responsible not only for the control of existing diseases, but also for the prevention of disease and even for the promotion of health.

## Disease Prevention—Health Promotion

Of course, housing workers are interested in the *control* of disease; we note the greater difficulty of effective quarantine in multiple dwellings than in one-family dwellings just as we note the greater difficulty of controlling anti-social practices in one type of dwelling as compared with another. But this is mere mitigation. We are much more interested in prevention, and we are still more interested in health promotion. We believe that the greatest under-developed resource of America is its population. And that population has a long way to go along the road to better health, not mere absence of disease, but positive, glowing, exuberant health. We think housing has a contribution to make toward this end. And, being somewhat literal minded, we think that the title of the public health officer means that he also has a contribution to make toward the promotion of health.

The reason housing workers desire allies in the medical profession is because—perhaps we are biased—we believe that, not only have we more obstacles to overcome than has any other profession, but that some of our chief obstacles are those with which you are familiar and with which you can deal most effectively. There are the familiar inertia, the passive acceptance of things as they are, that you know. Disinclination to effort is not confined to the southern cracker; those who long have lived in dark cellars develop an apparent preference for dark cellars. But the inertia, the acceptance go beyond our patients, *i. e.*, the tenants, they extend to owners and agents, and beyond them, sometimes, to public officials. Strongly entrenched vested interests sometimes seem to believe there is a profit in bad housing. Political organizations sometimes seem to believe there is an advantage to themselves in bad housing. So inertia and passive resistance are supplemented by positive resistance. It is surprising how many there are, and for how many reasons, whose expressed desire is to be let alone. The man who has reached the comfortable drowsy stage in freezing to death, is typical of a large section of humanity.

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*Address delivered before the Pennsylvania Public Health Association.

So, because we have, in general terms, a like purpose, because some of the obstacles we encounter are the same, and because the medical man, and more particularly the health officer, enjoys a certain prestige which enables him to put over his beliefs, we housing workers desire his sympathetic and understanding cooperation. We may or may not be able to repay in kind, but we would remind you that you once received from others what we now ask you to pass on. Read again the book of Exodus and note some of the religious observances required of the Children of Israel. Note such requirements as that of a little spade on the butt of each warrior's spear shaft. Hygiene received aid in its tender youth. Now is the time for it to pay its debt.

**Packed In**

Through medical organizations, through personal contacts the medical man creates public opinion. Through his advice to patients he may even change family habits, move families from one part of the country to another. If he can do this, then he should be able to persuade them to move from one house to another. And intelligent moving offers a means of promoting health. It offers one of the best means of improving housing conditions, by depressing the market for bad houses and stimulating that for good.

## Good Housing—Cleanliness

I assume that public health officials recognize a relationship between health and cleanliness. Of course, I have heard the argument that too much bathing is weakening, that bath tubs are instruments of physical degeneracy, that cold cream and perfumes have advantages beside that of time saving. I even have heard—it was years ago—a prominent public health officer state that the healthiest children of New York were the dirty little urchins who played on the garbage piles of Barren Island. But he, I believe, would be quite insistent upon cleanliness in a hospital. I often have heard and agreed to the statement that filth is not necessarily a carrier of disease, and each time I have considered the statement just about as pertinent as the statement that all quadrupeds are not horses. For it is obvious that if all filth carried disease our noble Caucasian race would never have survived the Dark Ages. But it is one thing to survive, merely to exist and propagate, and it is another thing to live abundantly. It is the latter we now are after. And abundant living is promoted by cleanliness. Even early rising produces no such conscious sense of virtue and well-being as does a bath.

To some of us housing workers there seems to be an equally definite relationship between good housing and cleanliness. In fact we would go so far as to say that if good housing could be described in one word, that word would be "cleanliness." Of course, no one word is adequate, for in good housing there is, among other things, an emotion that transcends even a Dutch passion for soap and water, an emotion compounded of hominess, comfort, security, beauty. Yet, recognizing its limitations, "cleanliness" may be considered the basis of good housing. But in order to secure cleanliness we must do several things. And it is in the doing of these that we ask your aid and support.

I already have mentioned soap and water, which I believe the medical profession has come to accept as better disinfectants than are bad smells. But soap and water appears fairly well along in the housing program. Of course their use is always in order, but experience seems to indicate that if the stage is not properly set for them they do not produce the spectacular effects necessary for a popular appeal.

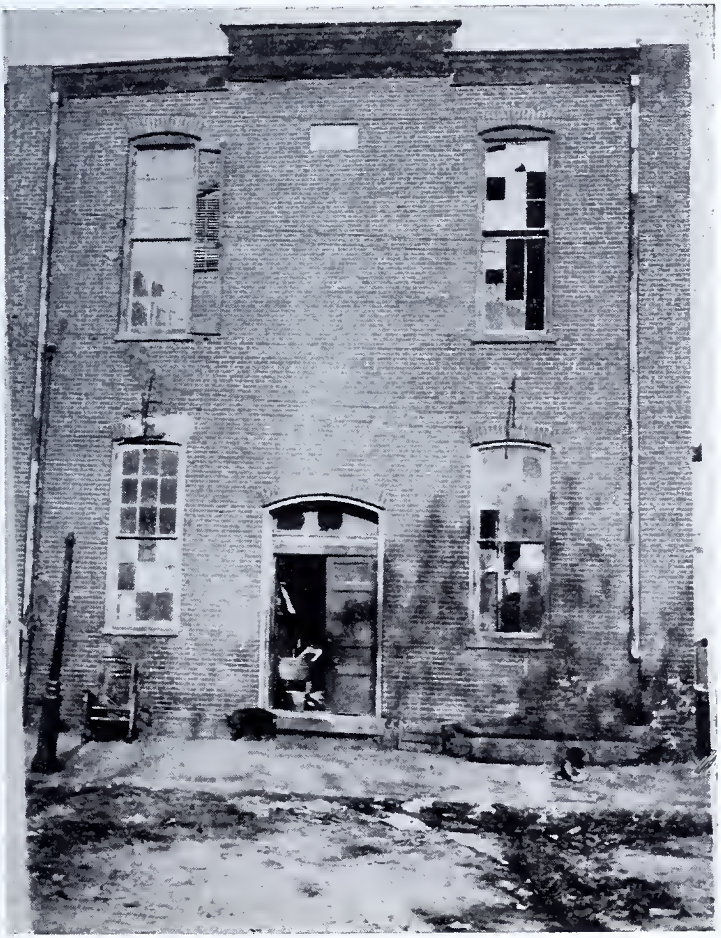
So we begin with adequate open space about the dwelling. This permits us to introduce water where it will be convenient for use. Some of you may be acquainted with the bandbox houses that were so popular among Philadelphia speculators in the time of our grandfathers. Others of you may know other types of tight little houses which defy human ingenuity to find space for a kitchen sink, let alone a wash basin, because there is no yard space for remodeling or for additions.

Even more important, these tight little houses, the tight little apartments in big barrack tenements, are cut off from sun and air. And sun and air are our best cleansers. The one point that might be urged in favor of houses that overcrowd their lots, or apartments ventilated by airshafts, is that they provide an irrefutable argument in favor of building more hospitals.

Secondly, adequate space within the dwelling. The period of small rooms seems to be drawing to its close. Hotels and apartment houses whose builders economized not wisely but too well, are facing bankruptcy; and from our point of view—cleanliness, good health, good housing—the sooner they fail the better. Our laws set a definite minimum standard for room sizes so our lungs may have air that has not been used too often. But adequate size promotes cleanliness in other ways; it makes possible a greater window area; it makes possible the moving of furniture and that makes possible more effective cleaning.

By and large the dirtiest rooms are the darkest rooms and the rooms so small one cannot work in them effectively.

Thirdly, waste removal. Waste removal covers a considerable range; human wastes, household wastes—animal, vegetable, inorganic. Even the sterile ashes of last winter's forgotten fires may conceal about them somewhere a health menace if only because of their effect upon morale.



**This Place Houses Twenty-three Families. Think of it!**

Fourthly, water supply. After space has been provided for it, after accumulations of wastes have been removed, then we may expect water (and soap) to be used effectively. For the real practitioners with soap and water desire a positive, not a negative result. Their satisfaction comes not from mere absence of dirt, but from gleaming surfaces and shining faces.

These things that the housing workers ask for are simple things: Space—outside and inside the house; light—sunlight so far as possible; air—moving air; waste removal; and water supply. If we had these we would have the basis for good housing. Until we have them we cannot have good housing. If we had these the public health would be improved. Until we have these, we shall be handicapped in our fight against disease.

So we hope and we ask for the assistance of the public health officers in creating a public opinion, in changing habits of living, in overcoming inertia and passive resistance, in securing and enforcing legislation that will promote cleanliness, good housing and good health.

# The Health Gnome Says—

Science and invention
Have done much for folks these days;
Life's happiness has been added to
In a thousand different ways.

Moreover, life is now surrounded
By many fine protections;
Safe water, milk and other things,
Have limited infections.

In fact there never was a time,
When folks were so protected,
Against the evils of the flesh
To which they are subjected.

But all this modern safety
Will amount to almost naught,
If by inexcusable carelessness
You don't do what *you* ought.

So don't forget this simple fact
As you go along your way;
Nine-tenths of the health and vigor game
Depends on how *you* play.

*J. C. F.*

# FULL SPEED AHEAD

### A. J. Bohl

*Supervisor, Health Officers*

AND I mean—ahead. Which is not to say that any retrograde movement isn't, at times, admirable. But ahead, onward and upward, and so on, seem to be the passwords to prosperity and well-being in this magnificent civilization of ours. So, let's go ahead.

Just within the last few months you have likely seen a magazine advertisement depicting the still clay of a man stretched across his desk. The caption, "Dead—at 41." I do not remember why he was dead, but it was certainly not of old age, and inferentially it was because of too much speed, too rapid living, and negatively, not enough attention to the day by day care, the garaging, of the human engine.

Back in the gay nineties, to be "fast" meant to be off color, but that is not what I mean; today, literally, too much speed constitutes the fast life. Here are the gay and decadent thirties, bright with color, thinly disguising a dull and deadly monotone of which the constantly increasing morbidity and mortality rates of heart disease, cancer and neurasthenia form no small part. And to them all the modern desire for speed contributes no small part.

Just let's go back to the gay nineties, for a moment, and view the big business man of that day. He was a worker, and that is about all he did. Golf was unknown, automobiles and movies had not been more than thought of, and week-ends simply were not. The big business man admittedly worked far more hours than he does today, but he worked leisurely, and when his day at the office or store was done he was through, and went to bed at a reasonable hour. His leisurely mode of life did not require him to squander any of his nervous energy.

Automobiles are all right, perfectly all right. But most certainly any one who has to drive to work, particularly in a highly populated city, is driving at the expense of his nerves, what with noisy klaxons, sudden stops and equally sudden starts, near collisions with trucks, trolley cars and taxi-cabs. And on the other hand, he is not getting the valuable amount of exercise that would be his if he were to walk to the office.

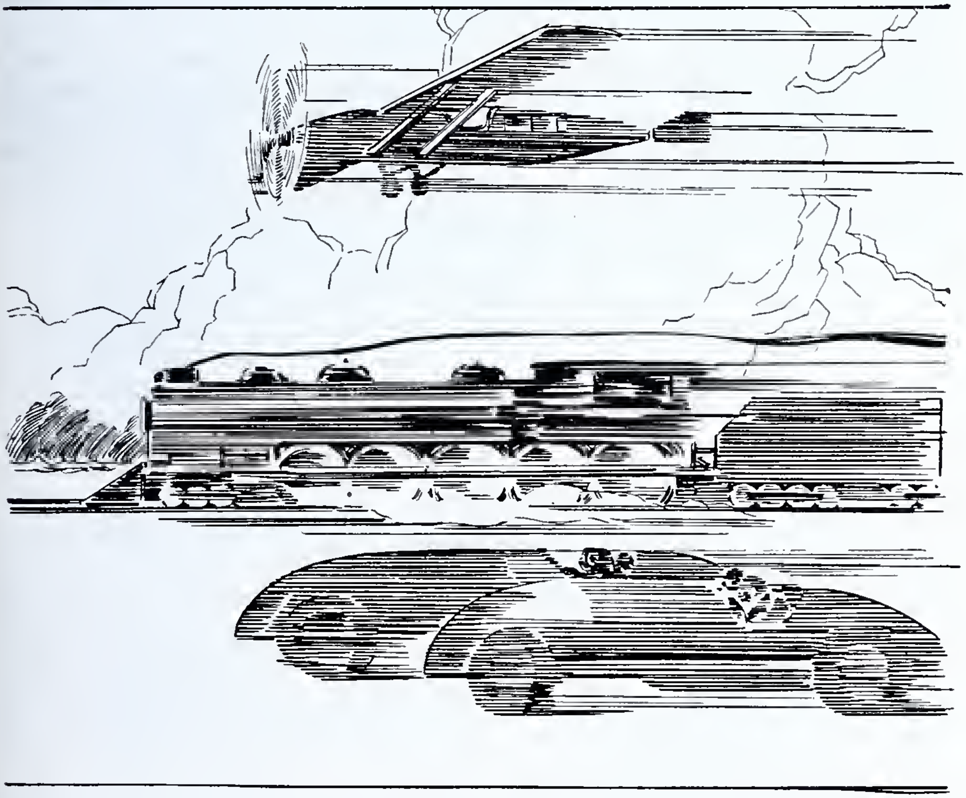
The old timer was not up against this. He had but little to annoy him in the way of racket and hairbreadth escapes from disaster, and he conserved that precious nervous force of his almost in toto. Best of all, he rested; went home leisurely, had his bath and change of clothing, and sat down to his dinner where he was not bothered by radio, telephone bells or any other wracking interruptions. Plainly, he loafed, rested, relaxed, and while he possibly didn't have the attraction that the modern man of fifty has, perhaps on account of the luxurious whiskers that were then fashionable, yet he lived to a ripe old age practically untroubled by the modern trilogy of killers, heart disease, cancer and peptic ulcer.

Today, we are facing the spectacle of too much speed. We're geared too high, and it seems to me that a great many of the men and women to whom the world must look for its advancement are the very ones who are living at too fast a rate.

Honestly, hardly a day passes in which we do not read of the death of some prominent man or woman at a comparatively early age, perhaps the late forties or early fifties. The cause, usually, is heart failure which, by the way, does not mean much, for somehow I've noticed the heart always fails when we shuffle off this mortal coil.

No fooling, here's the trouble. These people live at a high speed gait. I do not mean that they dissipate, for many of them don't use any alcoholic stimulants, or do anything else that would tend to injure them. In fact, it isn't what they do that hurts them so much as what they don't do. And what I mean is rest, relax, take it easy.

It is natural for a man who has a business to direct to have some worries, and he has contacts to make, appointments to keep, and all of that. He is at work early every day, and works till late in the afternoon. And if he takes a day off it is to play golf. His evenings are taken up with social duties, so it's an event if he gets to bed before midnight. On week-ends and holidays, golf, or some other form of exercise, occupy his time.



**Sustained Speed is O. K. for This Sort of Thing, but Not for Human Bodies**

Now, such a man is not wise. Of course he needs exercise. But remember that he is just about fifty years old, and he needs rest more than exercise. He is the fellow who just spread eagles across his desk along about four o'clock some fine afternoon, after a day of worry and work and bawling out some of the help, and his friends cannot do any more than to offer condolences and blame it on his heart. His friends ought to take it as a warning, and ease up a bit themselves.

There is a tremendous number of people in this good old state of Pennsylvania who have reached the age of discretion, along about forty-five or fifty. Life is just as sweet to them as it was at twenty; and there isn't any good reason why, if they have fairly good health and no killing organic disease, they should not live to the age of seventy, or even seventy plus. But, they've got to realize that they are forty-five or fifty.

No sense in a man fooling himself, kidding himself along that he's just as good as he was twenty years ago, for he isn't. He is just as strong, just as intelligent, that's true, but the years have taken their toll of his heart and arteries, his eyes and his digestive organs. He is the fellow I'd like to reach, the man who won't go to a doctor, who wants to keep up with the young fellows in athletics and loss of sleep and so on, the speed-crazy man, who is letting high-pressure living rule him.

Better stop, Mr. Man, before it's too late. Stop, relax and take it easy. You can do it, and keep yourself perfectly happy and healthy. Just don't forget that your emotions, your habits, your high speed tactics, have everything to do with your physical condition and length of life. It may sound silly, but it's true. Think it over!

* * *

## HOUSEHOLD REMEDIES AND FIRST AID

### Harold B. Wood, M. D.

*Epidemiologist*

WHEN our forefathers lived a day's journey from a doctor it became the practice to rely upon haphazard medication with household remedies. Kitchen cupboards accumulated goose-grease salves and from the rafters hung bundles of dried herbs. Sassafras tea was given in the spring for all ailments. Wounds were dressed with dusty cobwebs and chewed tobacco.

It is true that some of our present drugs are derived from the plants used as medicines by the Indians, but other herbs such as camomile, horehound and boneset, which were first used as teas and later were admitted to some drug store shelves, have gone into the discard and been replaced by more active and more concentrated drugs.

It is advisable for families to maintain a collection of household remedies, but they should be few in number and for emergency use. The following articles should be kept on hand:

A clinical thermometer. Sterilized gauze for the dressing of wounds, gauze bandages and a roll of adhesive plaster. A variety of prepared first-aid dressings may be purchased at any drug store. It is well to have them on hand.
Aromatic spirits of ammonia. One-half teaspoon full in water should be used for faintness.
Carbolated vaseline, or similar preparation, for application upon small burns.
Tincture of iodine or mercurochrome.

When a doctor prescribes a medicine the unused portion should be thrown away and not kept for future use for someone else who may become ill. Many drugs deteriorate with age. Most prescriptions are written for a particular group of symptoms or to treat the individual needs of some person. Moreover, little children think all pills are candy. Numerous children have been killed by having access to the family medicine shelf and its supply of needless drugs. Adults, too, have lost their lives because they carelessly kept poisons on the same shelf with their medicines.

Cold and hot water are valuable in first-aid applications but must be used properly. Injured eyes may be bathed in cold water. Hot water should never be applied to the eye, except by a physician and for pannus. Householders should not apply any other warm treatment to the eyes; poultices are dangerous. Blindness has sometimes resulted just because a hot poultice was put on an eye which was only slightly injured. In all eye accidents the safest plan is to see a physician at once. Even sympathetic but untrained people have destroyed the sight of other persons in trying to remove foreign bodies from the eye; to remove them only the softest cotton applicator should be employed. The use of match sticks and toothpicks for such purposes is exceedingly dangerous.

In bruises and sprains, warm or hot water may be applied to keep down the swelling so a correct diagnosis can be made readily by the doctor. But it is wrong always to regard a hurt as a sprain and to imagine that hot water is the only treatment needed. A fracture or a dislocation may be overlooked if a physician is not called and when neglected too long the correct reduction or adjustment may not be possible. Examinations of such injuries should be made immediately by qualified physicians. Sometimes X-ray examinations are essential or imperative.

Minor injuries become of serious consequence frequently because not properly handled in the first place. Splinters should be removed at once and a drop of tincture of iodine or mercurochrome solution forced into the wound. Scratches and cuts should be sterilized by iodine or mercurochrome solution. Small cuts may be held together by thin strips of adhesive plaster, but large cuts require surgical attention.

**An Overloaded Medicine Chest Like This One Invites Danger**

Headaches come from many causes, from eyestrain to smallpox, from constipation to typhoid fever. Before they can be treated intelligently their cause should be determined. They may come from insufficient ventilation of bedrooms, or from too cold air blowing upon the head; from insufficient illumination, or from glaring lights shining into the eyes; from poor eyesight, improper food, displaced abdominal organs, syphilis, brain tumors or many other conditions. To overcome headaches the cause should be corrected. It must first be found out.

To resort to headache pills or migrain tablets is inviting danger, as drugs which will depress the pain depress the heart, with occasional disastrous results.

Fainting is caused by the blood leaving the brain from psychic or physiologic causes, from fright to kidney disease. If frequently occurring there may be an organic condition which needs correction. The best treatment for fainting is to have the patient lean very far forward while sitting on a chair, or to press firmly upon the abdomen while the patient lies flat upon the back.

The home treatment of colds and sore throat is risky. Very frequently mothers think their children have mild colds when they actually are in the early and dangerous stages of measles or whooping cough. These children, with unrecognized contagious diseases, go about spreading diseases which are frequently fatal. The sore throat is also sometimes thought mild when it actually is diphtheria. These cases go undiagnosed until too late to be saved by antitoxin. Tonsillitis, which begins as sore throat, also has causes not reached by cough drops.

Cathartic drugs act differently for different people and the long continued use of any cathartic develops a habit. There is no cathartic drug which will act satisfactorily for everybody and without nausea or griping. Several which are bland for some persons are painful for others. The treatment for constipation, therefore, is not continued dependence upon any advertised pill, but a determination by a physician of the cause of the symptom, with the proper correction of conditions or alteration of diet and habits.

Intelligent preparedness and caution are the keynotes of successful first aid. *Second* aid and, wherever possible, first aid should be delegated to the doctor. Amateurism is risky.

## DEPARTMENT NEWS

RETRENCHMENT—In the spirit of the times it has been deemed wise temporarily to reduce the issues of *Pennsylvania's Health* to one-half its usual size.

In view of the popularity of this publication, it is the Department's desire to reestablish it upon its former basis as soon as possible. In the meantime, every effort will be made to sustain its quality and reader-interest as the Department feels that whatever health educational power and influence it possesses should be maintained for its 31,000 readers.

AN APPOINTMENT—Claude E. Towner, of Monongahela, Pennsylvania, formerly editor of *The Monongahela Daily Republican*, and a former member of the legislature, was recently appointed news director. Mr. Towner's duties involve the preparation of articles and items referring to Department of Health activities for use in the newspapers—the weekly syndicated health and dental talks excepted, these continue to be prepared by the Bureau of Public Health Education.

DENTAL ACTIVITIES—A report recently submitted to the Secretary of Health by Dr. C. J. Hollister, chief of the Department's dental section, outlines the work accomplished for the school year 1930–31.

More than $200,000 were spent on dental hygiene activities in the schools alone throughout the Commonwealth, the vast proportion of this amount representing local expenditures by school boards. Prophylaxes, or dental cleansings, were made in the schools to a total of 156,693 pupils. Corrective advice cards were given to 110,048 pupils of which 25,721 have been returned signed by dentists indicating that the work needed had been accomplished.

Commenting further in this report, Doctor Hollister states, "It will be surprising to many to learn that 781,000 cavities were found in the mouths of the pupils examined, an average of five to a mouth. The general condition of the teeth showed 69,973 clean, 72,410 fair, and 29,757 dirty. Fistulas were found to the number of 10,887.

"The use of the toothbrush is also more or less eloquent in the figures. More than 88,000 pupils used it daily, 62,710 occasionally, and the comparatively large number of 21,343 did not use it at all—indicating the value of educational work in this important phase of mouth care."

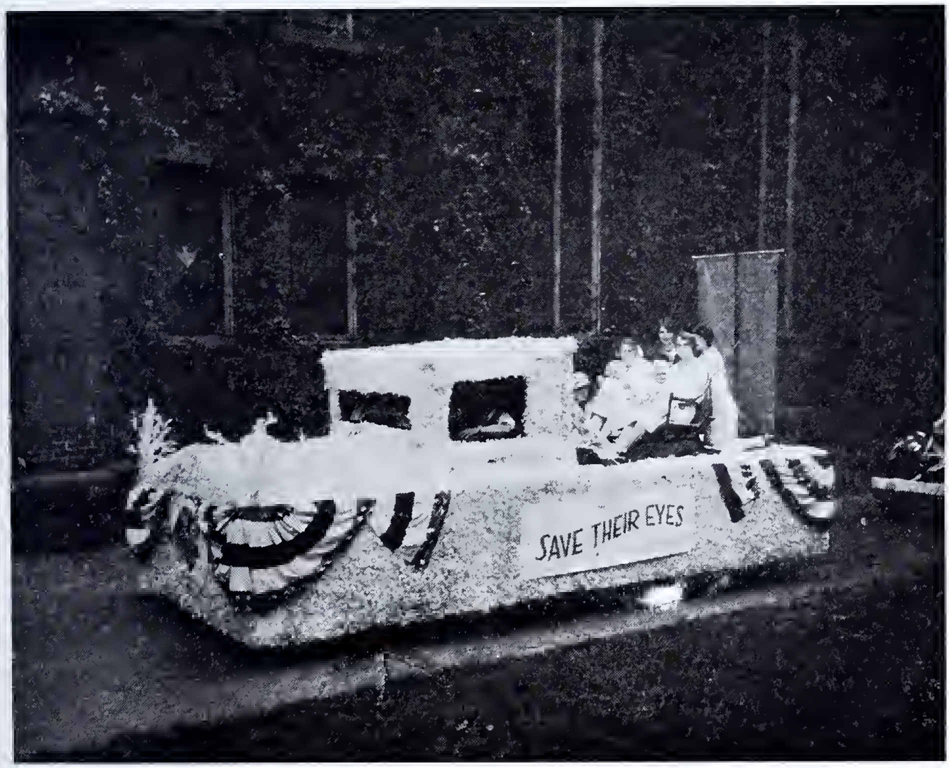
Other figures given by the report indicate that talks and drills amounted to 16,315. Home visits in connection with dental hygiene work reached 1,809. The dental honor roll added to its number 12,715, and separate examinations totalled 52,184.

Concluding, Doctor Hollister said, "Dental hygiene in Pennsylvania is progressively becoming more comprehensive every year. Despite the general educational program, the fact remains that thousands of younger children, and older ones for that matter, are not trained in mouth hygiene except in schools. The preventive work represented by the establishment of proper habits of mouth care is incalculable in view of the fact that numerous diseases of middle age can be directly traced to neglected teeth."

Incidentally, how are the mouths of *your* children.

PREPARING FOR MAY DAY—Doctor Mary Riggs Noble, chief of the Department's pre-school section, recently advised the Secretary of Health that preliminary plans have already been completed for the usual State-wide observance of May Day Health Week. As a health and life conservation procedure this celebration, which results in a professional inquisitiveness into the actual and potential ills of young people in rural sections, has very tellingly proved its worth.

The interest of parents and the public generally in this vital phase of the Department's work is indeed exceedingly encouraging.



**A Dramatic Illustration of a Portion of the 1931 May Day Celebration at Farrell**

PUBLIC BATHING POOL OWNERS, TAKE NOTICE!—More than 900 owners of public bathing places have failed to file their applications for permits to operate under the terms of the Public Bathing Law, effective September 1, 1931, recently announced George W. Moore, engineer in charge of this work.

No pool of any sort may be legally operated until it has been licensed so to do by the State Department of Health. Such permit is secured by filing an application with the Department, giving all the required information, together with plans, specifications and descriptions of the bathing place, source of water supply and purification methods.

The operation of any bathing place of a public nature, at the present time, without a permit, is in violation of the law. The initiative in the matter of securing this paper lies with the bathing place owner. He must acquaint himself with the terms of the Act and conform to its requirements.

How about *your* pool, Mr. Owner?

HEALTH PROTECTION FOR THE PRE-SCHOOL CHILD—The Department has received a copy of this volume published by the Century Company. It embodies the report which was made to the Section on Medical Service of the White House Conference on Child Health and Protection, and is an exhaustive study, both in narrative and statistical form, of the multiplicity of problems involved in this most important subject. Its value to all those interested in health conservation for the young child is very great, and if it enjoys the circulation to which it is entitled, it is not too much to say that it would definitely influence the lives and health of America's young people.

MILK STATIONS—The Milk Stations supervised by the State Department of Health and initiated by Governor Pinchot have been doing a wonderful piece of health conservation work throughout the winter. These stations are located at Avella, Bernice, Coverdale, Kinlock Mines and Renton.

More than 1,000 quarts of milk daily have been distributed in the aggregate at these places, the distribution being under the administration of the Secretary of Health and under the direct control of state nurses. The quantity of milk given each child is dependent upon its particular needs. This activity has actually been a life-saver to hundreds of undernourished, and therefore potentially diseased, children. A great work, indeed!

LABOR CAMPS—Under the Governor's orders, labor camps have been established at Claysville, Washington county; Normalville, Fayette county; Curwensville, Clearfield county; Kittanning Point, Blair county, and Pleasant Unity, Westmoreland county.

These camps were established to relieve the unemployment situation and contain an average of 85 men of the locality in which they are located, who are engaged in work upon the secondary highways in the respective sections involved. The men are housed under canvas, though the tents have board floors and board sides, equipped with National Guard housing articles, including stoves. A large mess tent supplies the food.

Each camp is under the direct supervision of a National Guard representative, and the sanitary protection is in charge of engineers and bacteriologists of the State Health Department, C. B. Mark being in charge of this group.

In order that no person with a communicable or infectious disease may be admitted to the camp and otherwise to protect the camps against illness, physicians from the State Department of Health are constantly supervising the camps and have examined every applicant. The Department physicians in charge of this work have been Dr. S. J. Dickey and Dr. H. B. Wood.

# Vital Statistics Comment

## "AN OUNCE OF PREVENTION . . ."

**Florence Hardy**

*Assistant Statistician*

IF society had heeded the old adage there would have been over 8,500 fewer deaths in Pennsylvania last year and 99,000 less in the United States. These figures represent the toll caused by accidents. Considered from a health viewpoint, accidents are a preventable "disease." Just as smallpox has been eradicated by vaccination and diphtheria conquered by immunization, so accidents can be reduced to a minimum by the simple use of **Safety First**. It is in the application of this motto that the general public fails.

To the average American, his newspaper's account of the mounting mortality from accidents is appalling. However, that same citizen will run his automobile motor in a closed garage, his wife will ascend a decrepit stepladder and his child will hitch on to the back of a streetcar. It often happens that a person who is most concerned about his health apparently gives little or no thought to his safety. And, what is more serious, he disregards the safety of others. There are many who refuse to take an airplane trip but will speed along the highway at fifty or sixty miles an hour. Housewives will walk cautiously on an icy pavement but will reach blindly into a medicine cabinet. The child has a well founded fear of the street intersection but deep water in a swimming pool holds an irresistible allure for him.

The National Safety Council states that 33 per cent of the total accident mortality in the country in 1930 was caused by the motor vehicle. In Pennsylvania, the ratio was slightly lower—30 per cent. The 30 per cent signifies in actual numbers 2,555 deaths the majority of which were due to someone's carelessness. Recklessness is not defined alone by speeding, cutting in or disrespect for **Stop** signs. It also includes driving with faulty equipment. Impaired eyesight demands immediate medical attention, but poor headlights are often ignored until they have caused a fatal injury.

Of all the deaths caused by motor vehicles in this Commonwealth, approximately 18 per cent occur among children under 10 years of age, 33 per cent in the productive ages from 20 to 44 years inclusive and 13 per cent in elderly persons over 65 years. This needless loss of life continues to increase. There is no serum treatment, no diet which will cure this ill. The only antidote which assures permanent improvement is caution mixed equally with common sense.

Falls represent the second leading cause in accidental mortality. The majority of these fatalities occur in the home, and over two-thirds of the deaths are of people over 55 years. For persons of that age the hazards of the home are twice as great as those of the highway.

The relative importance of the 8,583 accidental deaths by cause for 1930, follows:

| *Cause* | | *Percentage of Total* |
|---|---|---|
| Automobile accidents | 2,555 | 29.8 |
| Accidental falls | 1,766 | 20.6 |
| Traumatism in mines and quarries | 794 | 9.2 |
| Burns and conflagration | 612 | 7.1 |
| Railroad and street-car accidents | 535 | 6.2 |
| Drowning | 435 | 5.1 |
| Excessive heat | 344 | 4.0 |
| Absorption of poisonous gas | 220 | 2.6 |
| All other causes | 1,322 | 15.4 |

Note:—Automobile accidents include collisions with railroad trains and street-cars. Railroad and street-car accidents exclude collisions with automobiles.

At the present time in Pennsylvania, accidents are the fifth leading cause of death exceeded only by heart disease, nephritis, cancer and pneumonia which are primarily diseases of middle and old age. Fatal accidents are impartial to age, sex or color. They claim 24 lives a day in this State. Upon the public itself rests the responsibility whether or not the trend of this mortality will ascend or descend.

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# Pennsylvania's Health

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The Tuberculosis Clinic. The First Step for Many on the Road Back to Health

# Editorial

## THE MIDDLE GROUND

IF the average individual of today is not health-conscious it certainly is not because he lacks the opportunity to be so. Bombarded on all sides by attractive advertisements in magazines and newspapers, by wise and unwise articles, by the high-pressure psychology of the faddists and cultists, by the pseudo-claims of the downright charlatans, and last but by no means least, by legitimate health propaganda issued by the many public health services, the American citizen these days has a slim chance indeed of escaping health emphasis.

As a result, there are three main reactions to this flood of suggestion and advice. A large group becomes intensely interested in the subject academically—and permits the matter to rest there. A smaller group becomes highly introspective and thus "goes in" for all sorts of foolishness. While the third group, viewing the question sensibly, is neither subjectively indifferent nor fanatically anxious to apply all sorts of untried theories. The last named class occupy the commendable Middle Ground.

It should be appreciated that the human body, judging from generations of displayed power, is an exceedingly tough proposition. Speaking in averages, it has got along quite comfortably without the application of many of the fads and fancies that now are so eloquently urged upon it.

It follows that many persons who have become egocentric upon the subject of health might well apply their time and talents to more worth while matters. And it is equally true that the hundreds of thousands who read with interest all the good health ideas, and then persist in carrying out their own inclinations irrespective of physical consequences, are denying the body the obvious advantages of decent treatment.

Generally speaking, to attain health and maintain it, a reasonable position must be assumed. Neither complete indifference nor fanaticism should be tolerated. The Middle Ground represents the best territory on which to stand in this respect.

Health, very properly, demands intelligent consideration and a consistent application of checks and balances. But the point is that once having discovered the physical habits under which one best thrives, the main thing is then to live up to them. For most normal persons, such a discovery will include the necessity for eight hours sleep each night, an average intake of all types of provender, a reasonable quota of daily exercise, and attention to internal sanitation.

Such concerns viewed rationally plus an annual physical check-up by a physician, represent the Middle Ground in Health and the best chance for maximum vitality.

J. C. F.

# MENTAL HYGIENE AND PUBLIC HEALTH*

**William C. Sandy, M. D.**
*Director, Bureau of Mental Health*
*Pennsylvania Department of Welfare*

MENTAL hygiene, in its broadening sphere, has come to be recognized as an important phase of public health. This is not surprising when it is realized that half the hospital beds in the United States are devoted exclusively to mental patients. Furthermore, there are often mental elements in so-called ordinary illness which frequently remain hidden and seriously retard recovery. For example, it has been stated "that at least forty percent of men and women who consult physicians for a wealth of distressing bodily sensations are victims of poor health associated with unwholesome states of mind." Detailed statistics almost without end might be cited, if it were necessary and desirable, showing the etiological or at least complicating mental factors in the ever-present public problems of illness, dependency and delinquency.

The mental hygiene movement has, therefore, passed beyond the somewhat limited scope of the psychiatrists who, however, will continue to lead, guide or advise. But numerous others have become interested in mental hygiene, insofar as they have recognized their opportunities and responsibilities. Among these are the general physician, (especially the pediatrician), the educator, the nurse, social worker, psychologist and even the clergyman. Parents should also be included as they should and sometimes do recognize their strategic position in having their children almost exclusively under their control during the most plastic period. For childhood presents the best time for constructive efforts towards establishing mental health, through advice, example, environment and opportunity.

## What Is Mental Health?

A man's mental health, or the degree with which he is adjusted to himself and the world at large, is the combined effect of many factors. Heredity plays some part, but probably not to the extent once believed, which makes the outlook more hopeful. Environmental factors must be considered such as the home, education, opportunities and example. Even where bad heredity appears likely to undermine mental health seriously, undesirable tendencies may be overcome or the effects lessened, if recognized early and a well planned treatment or course of action is applied. The early elimination of remediable, handicapping physical defects is also conducive towards establishing mental health. Here are hints as to how a campaign for mental health may be instituted. What then are the public health aspects of such a mental hygiene drive?

"Prevention" should be the keynote, for this phase of mental hygiene is as important as it is in other conditions of health and illness. Hence, public health workers have definite opportunities and responsibilities in the field of mental hygiene.

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* Presented at the Seventh Annual Meeting of the Pennsylvania Public Health Association.

## Value of Baby Clinics

Baby clinics, so far as public health activities are concerned, probably present the first opportunity for constructive mental health efforts. At these clinics, it is possible to bring about the early establishment of proper routine habits of sleep, food, elimination and rest, all of fundamental importance in building mental health. Remediable physical defects may then be discovered and corrected or treated. Such clinics, with the instruction of parents in recognized principles of child care, often lay the foundation for the future mental and physical welfare of the child.

The preschool examination movement is a further check upon the status of the child at a period when he may yet be better prepared for the increasingly heavy educational burdens, or saved from some serious mental handicap. Preschool examinations should disclose sensory defects such as the slight deafness sometimes mistaken for defective intelligence; extreme shyness; overactivity; other difficult temperamental qualities; apparent feeblemindedness; or such physical symptoms as enuresis, convulsions, tics, severe speech difficulties, habit spasms and the like. Left-handedness often has an important relationship with the development of stammering, and the early discovery of such a condition would afford an excellent opportunity for constructive guidance. Certain endocrine dysfunctions are more susceptible to successful treatment in infancy and childhood with possible avoidance of later mental deterioration. These and many more conditions bearing causal relationship to impaired mental health may be discovered and to a considerable degree counteracted in childhood, provided there are efficient public health agencies in active operation.

## Mental Health Clinics

Under the auspices of the Welfare Department's bureau of mental health, general mental clinics for all ages are being established throughout the commonwealth. These mental health clinics are conducted by physicians from the staffs of the various institutions and by the field staff of the bureau. Many were started upon the initiative of the superintendent of the hospitals. In 1922 there were seventeen; in 1931 there were sixty-five.

These clinics afford facilities for advice about mental health and are utilized by the schools, courts, physicians, social agencies and others. Children who are retarded in school or are manifesting behavior difficulties are brought for diagnosis and advice. Courts send cases of juvenile delinquency for study and advice as to what should be done. Where school systems have the benefit of mental clinics and the services of visiting teachers or school counselors, behavior disturbances, inability to keep up with classes or other difficulties are often solved or at least explained.

The child himself may not be the main trouble—it may be an overbearing dictatorial father whose attitude results in repression, feelings of inferiority or open rebellion in the child. Or it may be an oversolicitous mother whose coddling of the child has caused fixation at an infantile level, over-dependence, timidity, indecision and lack of initiative. Or a temperamental teacher may misunderstand a somewhat similar child. What an opportunity for service in salvaging individuals who might otherwise become institutional burdens!

For example, in one year there were almost three thousand first-patient visits in the various mental clinics under the auspices of the bureau of mental health. Such activities are obviously in the interests of public health and those ordinarily classed as public health officials such as the school physician, the school nurse, Red Cross nurse and the visiting teacher all participate in providing for the consideration of problem cases where these facilities exist.

The community mental hygiene service is being gradually extended as it becomes possible to establish more clinics. The comprehensive program for the institutions in Pennsylvania has for its ideal the providing of the best possible diagnostic and treatment facilities for all mental patients without regard to the district in the state where they happen to be legal residents. This ultimately means complete state care of mental patients, and not as at present the dual system of state and county care.

## More Beds In General Hospitals Required

Adequate as this program may seem to be, there is urgent need that it should be supplemented by more beds in general hospitals set aside for the use of mental patients. Such beds are required for temporary care of mental patients pending commitment for observation of borderline or doubtful cases and for the energetic diagnostic study and treatment of occasional patients whose condition is regarded as of probable short duration and where an acute infection of some kind is suspected. Such accommodations in general hospitals would largely end the deplorable practice in some places of detaining mental patients in jails who have been charged with no crime, pending the completion of commitment papers. Internes and nurses, furthermore, would be given a desirable opportunity to learn more about mental patients.

A better understanding of mental illness by physicians and nurses tends to a more thorough general consideration of all patients—a realization that they are dealing with individual personalities reacting to some so-called disease rather than simply with an isolated disease process. A complete study of patients will take into account possible mental factors such as difficult home situations, financial distress or numerous other complicating circumstances which may, unless discovered and given some attention, seriously retard recovery.

To recapitulate: Mental hygiene is an important phase of public health.

While psychiatrists will continue to lead, guide or advise in the mental hygiene movement, public health officials such as school physicians and nurses, visiting teachers and others, also parents, are coming more and more to realize their opportunities and responsibilities.

"Prevention" should be the keynote in any mental hygiene program. Such facilities as baby clinics, preschool examinations and general mental clinics are important preventive measures.

The community mental hygiene service and the institutional program should be supplemented by more beds in general hospitals for mental patients. These beds are needed for temporary care of mental patients pending commitment, the observation of borderline cases and intensive study and treatment of selected cases.

Beds for mental patients in general hospitals would also afford an opportunity for the better training of internes and nurses in the treatment of mental illness.

It is therefore evident that the public health aspects of mental hygiene present definite responsibilities and opportunities for activities especially in the field of prevention.

## ARE YOU SLAVE OR FREEMAN?

**J. Clarence Funk, Sc. D.**
*Chief, Bureau Public Health Education*

"THE 13th amendment to the Constitution did not by any means free all the slaves," recently remarked the president of one of the largest insurance companies in the country. "In fact, there are many more now in that class than there were in 1863. They are the habit slaves."

When that gentleman made this arresting statement, he was speaking from exact information. Insurance companies must reduce death claims to a minimum and keep them there. And in their studies of mortality trends and causes they have accurately determined that the most powerful and devastating enemy arrayed against them is represented by bad habits.

In olden times typhoid fever, cholera, smallpox and tuberculosis went merrily on their death-dealing way slaughtering thousands each year. However, preventive medicine and public sanitation have magnificently defeated all but tuberculosis, and even that scourge has had its wings clipped. Yet the startling fact remains that despite this marvelous scientific conquest the life-expectancy of the mature person has had scarcely a day added to it!

The popular impression seems to be that a fifteen year extension to the existence of the average individual has been achieved. Whereas, in fact, this extra grant of life applies only to the age group of from birth to forty-five years. While this in itself is an outstanding attainment, it becomes evident that the battle thus far won has not been a spectacular success where the middle-aged or older person is concerned.

It is quite true that in scientific control of the water and milk supplies, in improved diagnosis and in more skillful surgery, great numbers of lives of grown-ups have been saved. But the point which pricks is that just as many of this group are now prematurely dying in the same proportion as they did years ago.

At first blush, one would be inclined to blame science for this deplorable state of affairs, but such an indictment would be altogether unjust. The fault is decidedly not there. It is entirely too personal for that. In fact, science in this connection is in much the same position as explained in the old truism, namely, "You can lead a horse to water, but you cannot make him drink."

The fact is that never in the history of mankind has there been so much known about diseases and bodily reactions as there is today, and never have the fundamental laws of personal health been so generally and consistently broadcast as at present. But what good is this valuable information if persons deliberately shut their ears to the advice and refuse to listen? And that exactly is the situation as it unfortunately exists.

Bucking health is more of a national pastime than most persons imagine. Consider, for example, that vast group of persons who are high-gear specialists. Speed to them is their god. They eat in a hurry, sleep in a hurry, play in a hurry and die in a hurry. Time, to them, is the prevailing factor of their existence. The clock is their absolute master. Slaves to its dictates, they daily and nightly lash themselves into a heart-breaking, nerve-wracking and altogether unreasonable pace; and this, on the foolish theory that they are "living."

While high-tension habits may be impressive, it should be understood that they are damaging to hearts, as every cardiac specialist will emphatically state. Indeed, they will even go farther by blaming this hurly-burly existence for a large number of the fatalities directly traceable to the failure of that all important organ.

**Coffee in moderation is one thing—Coffee in Excess quite Another**

The severity of this indictment becomes apparent when it is realized that heart disease has in the last two decades risen from a comparatively impotent slayer to the position of number one on the killer list. And, of course, while childhood diseases resulting in weakened conditions play an important part in heart damage, the foolish habit of uncontrolled speed shackles and slays many.

Moreover, senseless haste can be held directly responsible for the nervous wrecks and near-wrecks who have succumbed to the fury of this unwise passion and who thus have lost the joy of life which in its fullest measure can only be appreciated by those whose bodily functions are on an even keel. Decidedly, to be a speed slave is to be bound indeed.

However, just as protective information seems to be incapable of controlling the speed mania in life, it is equally powerless to compel persons to take the proper amount of rest each night. That this is only too deplorably true is evidenced by the fact that today many American people, particularly those of middle age or younger, are sleep bankrupts. Sleep occupies an inconsequential position in the program. Work, "a good time," radios, even books and magazines, all take precedence over this fundamental requisite of nature. Said a young and highly nervous lady the other night, "Sleep? Oh, I do that when I absolutely can't find anything more exciting!" Which statement, trite as it is, very unfortunately expresses the much too general attitude toward this great bulwark of health.

And so it comes to pass that a vast army of thoughtless persons, attracted to life's seductions as moths are to a flame, conclude that sleep is an extremely incidental affair to be classed as a last resort measure. These people represent slaves to the day's distractions.

The pity of it is that they consider themselves to be excessively bright by thus behaving; entirely overlooking the fact that the men and women who represent the distinguished names in the world of affairs are much too smart not to get their sleep quota each night and frequently some rest between times.

Many a person with Profit could Follow this Chap's Example

It scarcely needs professional authority to prove that loss of sleep means lowered bodily resistance to disease, and that grave illness and frequently death itself can be directly traced to the follies which deprive one of his daily rest.

Perhaps, however, the largest group of serfs in the United States may be called the food slaves. They are numbered literally in the millions. This great horde of persons (most of whom would vigorously deny it) live to eat. Ordinary observation is all that is required to substantiate this fact. Indeed, overeating is so general as to make the individual who eats strictly to live fairly conspicuous! Therefore, it may be honestly stated that teeth still occupy a high position in digging the graves of American people.

Again, while slavery is usually associated with activity, there is a striking exception among habit slaves. This group represents those who work their heads and let their bodies rust. Belonging to the white-collar crowd, of necessity they sit at their desks all day and then through sheer laziness refuse to submit their systems to the conditioning, through proper daily exercise, of which they are so sorely in need. Lack of body tone just naturally results. In consequence thousands open themselves to the inroads of illness and worse.

And finally, over-indulgence represents a steel cable that shackles many more millions. Bombarded on all sides by the exactions (imagined or actual) of today's civilization, more and more people are increasingly relying upon stimulants in excessive amounts to keep them keyed up. Having denied the body its basic rights of rest, exercise and sufficient food in proper quantities, these over-trained folks look around for painless substitutes and usually find them in the tobacco leaf or coffee bean.

Tobacco and coffee in moderation may not hurt people. On the other hand, it can not be stated too strongly that the abuse of these auxiliaries to contentment is robbing thousands of the vigorous health which they should naturally possess.

It thus appears that America is well represented by slaves of one kind or another. Slaves differing from the bondsmen of early days in that they have but to exercise their willpower and common sense to become free—which makes the subserviency all the more lamentable.

Life, to those who really live, is a most glorious adventure. But it must be understood that such an existence can not be predicated upon even the slightest bit of self-bondage. It demands the healthiest kind of a body and mind. Habits of any type that cause a deviation from this law deprive the individual of just so much of that which is his natural due.

Science can point the way; it can plead, beseech and entreat. But it can do no more. Self-imposed shackles are shackles just the same. And habit chains are among the worst that can be conceived.

In view of these facts, the question is personally, perhaps impertinently, asked: What are you, slave or freeman?

# The Health Gnome Says—

There never was a time like this,
  When fads and fancies grew
To such astounding size and shape,
  As now are well in view.

There are thousands of "professors"
  Who, for a certain price,
Are awfully anxious to fix us up
  With all sorts of queer advice.

White bread and meat and even salt,
  Are bad things to consume;
Avoid such stuff, these sages cry,
  Or lose Health's rosy bloom.

Indeed, one must not do anything
  That he really likes to do;
"To live," say the hokus-pokusers,
  "Your pleasures must be few."

To take the joy thus out of life
  And good food from one's tummy,
Is quite all right to this great tribe,
  Just so they get the money.

The moral of this sad tale is plain
  To those with any sense—
Live reasonably and moderately
  And shun all such "wise gents."

J. C. F.

# SUMMER FOLLIES

### A. J. Bohl

*Supervisor of Health Officers*

WELL, here's summer! Good old summertime, all shot through with blazing sunshine, brilliant with flowers and arabesqued with the melody of bird song. The most welcome, most gorgeous time of year to most of us. No cold winds to mock, no ice and snow and dreariness, but warmth and beauty everywhere.

It is but natural that after winter withdraws his armies we should want to resume our normal summer activities. We want to go bathing, hiking, camping, want to take trips here and there to mountain or shore. And because of this new freedom we too frequently overstep the bounds of common sense and prudence and do silly, foolish things that lead us astray and endanger our lives or health.

You know, health should be a mild fetish to all of us. It should be guarded, jealously guarded, for without it all the gifts of nature fade into nothingness. To guard this precious health of ours is easy. It requires no hardships, no loss of pleasure, no denial of essentials, but it does require a bit of applied common sense. We must not overstep the simple rules of health.

One of the greatest treasures of summer is sunlight. Indeed it is the prime treasure, for it makes possible all the other joys of this glorious season. We see and feel its light and heat, revel in them, but there are other things concealed in the rays of the sun, beneficial things, but also dangerous things if not rightly used. Below and above the visible rays are the infra red and ultra violet rays, and these have a profound effect on our bodies. It is almost bromidic to say this, for its been said and written and printed so often that it is a commonplace bit of knowledge to everybody. However, notwithstanding this wide knowledge, thousands of people venture into the sunlight every summer with no covering but a scanty bathing suit. They want to get a coat of tan. They want to go swimming or canoeing. And they just simply go. With the result that many of them get a severe sunburn.

Now, just examine the skin of your body. See how white and soft it is after being covered all winter. You can possibly see the slightly darker hue of that portion of your anatomy that was tanned last summer, for this color often persists over the winter months. This tint is not the result of any changes in the skin, but is caused by the development of colored pigment therein by the sunlight. This pigment acts as a sort of screen to sieve out of the sunlight the rays that injure the skin, and as soon as the color is well developed any reasonable exposure will cease to be dangerous and will become beneficial. With this in mind, play safe this summer. Get your coat of tan, but get it gradually. In the sanatoria they do it by exposing the feet and ankles for perhaps ten minutes, the next day the legs to the knees are exposed for ten minutes, and so on by degrees until the whole body has been exposed by ever increasing periods of time. This gives the protective pigments a chance to develop.

If you choose the unwise way, and just go swimming for three or four hours some sunny afternoon, you defeat your own purpose. Your sunburned skin is partially destroyed, you get blisters, the skin peels off, and you lose whatever pigment you may have developed along with the skin.

With all the waterways of Pennsylvania, all the rivers and creeks and lakes, it is no wonder that so many people are fond of water sports. Well, there is no better sport than swimming, no other single sport that is so good for the symmetrical development of the body. Go to it, but before you venture into deep places be sure that you can swim. And then, watch your step.

You know, it is almost traditional that everyone who drowns is an expert swimmer, At least, the newspapers usually say so and, quite often, it's true. It seems that the fellows who just think they are experts get the headlines in the accidental drowning news. The real expert knows what he can do, the novice knows he can't do anything, and both of them play safe according to their lights. The self-styled expert takes the chance and loses his life.

Therefore, take it easy. Over-estimation may result in a watery grave. Remember that good swimmers are not made in one summer. Johnny Weismuller studied and practiced swimming for years under the tutelage of expert coaches before he attained his preeminence in this sport. Play safe, and be safe.

**Too Much Enthusiasm for This Sort of Thing Will Make the Sun Your Enemy**

Incidentally, there are lots of people who do not like swimming, or any other water sport. Many people take their exercise and sport second hand, sitting on the bleachers at ball games, for instance, and while this is a lot of fun, it has little good effect on the physical welfare of the watcher. This is something for the athletic sitter to ponder on. Second hand sport should not be an exclusive devotion. The normal body demands action.

Almost any game is a good game—baseball, golf, tennis, anything, but we Americans are too prone to put the game first, and ourselves second. We play too hard, punish ourselves, instead of playing for the good of it. It is just as essential to rest as it is to exercise, and we ought to do one just as hard as we do the other.

Summertime, particularly, is conducive to the practice of burning the candle at both ends. This gives a lovely light, of course, a grand light, but it isn't at all economical of the candle. You know how it is, get up early and go to work, play some golf or tennis after office hours, and then into the car for a ride, or go to a dance, or in some other way keep out of bed until the wee small hours. That takes the silk out of you, slowly but surely, and sometimes not so slowly. Remember that there is always another day, another dance, another party, and that no matter how hard you try you can't do and see everything, even if you live through a hundred summers!

This is a perfectly good time to start easing up, so why not start? Overdoing is one of summer's follies, and this goes double for those who can take their vacation at a popular summer resort. There is so much to see, so much to do. There are the hotel dances to be attended, and all the other unfamiliar things that go with a change of scene. The poor vacationeer returns home completely tuckered out and, while he had a good time, the main benefit of his vacation was sacrificed.

**Don't Come Home from Your Vacation in This Shape**

Yes, what you eat during hot weather has a lot to do with your comfort and health. It goes without saying that you do not and should not eat as much of the heavy foods that represented your fare last winter. Spicy, heavily seasoned foods should be dropped from your diet, your meat ration can be safely scaled down, and their place taken by the good fresh vegetables and fruits that are seasonable. Even at that, don't be silly about diet and diet lists. That is another folly, both summer and winter.

Cold drinks are mighty grateful on a hot day, but just remember that sweet drinks, cold or not, help to make you warmer. Sugar is a heat forming food, you know; it is carbon, and burns or oxidizes in the body with the formation of heat. Cool water will quench your thirst, citrus fruits are helpful, either as fruit or as the basis for cooling drinks. And it is essential to remember that you need extra liquids to replace the liquids lost by perspiration.

To conclude, anybody, or almost anybody, can have a good time and keep healthy, no matter how hot the weather. It's all a matter of common sense, wearing suitable clothing, playing, eating and resting in a reasonable way. And you have some common sense, haven't you?

# THE MARIHUANA HABIT

### Harold V. Smith

*Chief, Bureau of Drug Control*

SMOKE marihuana? Use poison? Sophisticated? Perhaps. A new kind of thrill? Yes, a deadly one!

Thwarted by state narcotic inspectors, U. S. Internal Revenue agents, and local police, certain sinister underworld forces formerly more or less identified with the illegal drug traffic, now seem to be actively promoting a new kind of drug addiction in some of our large cities—and one, at present within the law, both state and federal. It is the smoking of the deadly marihuana cigarette. The warning against this dangerous practice cannot be made too strong .

This fad, if such it can be called, is not only made attractive to youthful thrill-seekers, but attempts are being made to inveigle those who abhor the use of alchohol and narcotic drugs. Marihuana cigarettes which sell at five cents apiece in states along the Mexican border are retailed at twenty-five cents each in large eastern cities. This comparative cheapness has much to do with the apparent increasing popularity of the habit. Another reason is that the drug is most insidious, and first users feel no bad after-effect. However, as innocuous and harmless as these cigarettes at first appear to be, habitual indulgence can lead to but one end—stark madness and death.

Marihuana is known under various synonyms, such as hasheesh, hashish, Indian hay, Indian hemp, guaza, ganjah, bhang, and so forth. Its botanical origin is classified as Cannabis sativa, var. indica. (Family Moraceoe). Its consistuents are: volatile oil, resin, bitter principle, gum, sugar, potassium nitrate and alkaloids.

Marihuana or hasheesh is not a new drug. From earliest time it has been known and used in the orient. Later it was brought to Central America and Mexico, where it is now extensively cultivated. Indian hemp (Cannabis sativa) is not indigenous to the United States, but the plant will grow in most any climate or place—even in flower pots. Plant seeds were long ago imported to the United States. In the New England colonies the hemp was originally grown for fiber to be used in making homespun.

In addition to its cultivated state, the plant now grows wild in southwestern and western United States, where it is found as a roadside weed. Western ranchers are only too familiar with the "loco weed" which not only drives their horses and cattle crazy, but often kills them.

It is a long step from fiber for homespun to hasheesh for drugged cigarettes. It is a much shorter step from the first such "smoke" to crime, madness—murder!

The general effects of marihuana are varied, according to the individual. However, in all cases, its action is centered almost exclusively upon the nervous system, eventually penetrating the protective sheathing of the brain, and bringing about the derangement and degeneration of that part of the upper brain which strikes directly at the seat of character. Even before madness finally overtakes the hapless victim, the seeming pleasant sensations of novice smokers gives way to dangerous and often irresistible impulses.

One of the individual and peculiar properties of this drug is that at certain stages its use arouses a wild, insane desire to mutilate or murder. This desire can become so compelling that it seems to the addict the only possible thing to do under the circumstances—and it is done!

The Arabian term applied to users of marihuana or hashish is, "Hasehischin." From this term comes one of the most gruesome words in the English language—assassin. Not only individual assassins use this drug, but at times it has been the practice in oriental countries for large groups to receive rations of hasheesh before going into battle, that they might prove more savage and relentless. This is also quite a common practice among bands of Mexican outlaws and desperadoes along the southwestern border of the United States, where marihuana has been used by the lower classes for a great number of years.

The "fad" is a comparatively recent one in this state, and is mainly confined to the southeastern sector. At present, Pennsylvania is not one of the states prohibiting the production and use of hashish or marihuana. Nor is its use and production prohibited by federal law.

However, by regulation under the Federal Food and Drugs Act, approved June 30, 1906, collectors of customs are directed to refuse delivery of all consignments of dried flowering tops of the pistillate plant of Cannabis sativa, upon notice of a representative of the Department of Agriculture of the identification thereof in the course of his examination of samples, unless the importer shall first execute a penal bond conditioned that the drug referred to will not be sold, or otherwise disposed of for any purpose other than in the preparation of medicine. The drug is not extensively used in medical practice, and since enactment of the tariff act approved June 17, 1930, none has been legally imported.

The present source of the eastern supply is mainly secured from members of crews of vessels coming from South America, Mexican and Cuban ports. This source of supply is further augmented by local production made possible by "home" growers.

Pennsylvania does not provide treatment for marihuana addicts, but persons so addicted will be able to obtain treatment for cure of the habit at one of the two United States narcotic farms to be established under the law approved January 19, 1929.

Avoid marihuana as you would a poisonous snake!

## DEPARTMENT NEWS

PUBLIC BATHING LAW—As has been formerly announced, the law relative to swimming pools became effective in this commonwealth last September.

Under this legislation, every owner of a bathing establishment must be licensed by the state before he can legally operate it as a public institution.

Regulations promulgated by the Advisory Board pursuant to this legislation have been adopted. All owners or operators of public bathing places, if they have not already done so, should get in touch with the Department's bureau of engineering in order that instructions for compliance with the law may be obtained.

Incidentally, no bathing pool of any type at the present time can be opened to the public unless an application for a permit has been filed with the State Department of Health at Harrisburg.

WATCHES MILK—The Department, through its bureau of milk control, continues to assist the milk distributor in the preparation and distribution of a clean, safe product.

For the purpose of rendering such service to the milk producers, the state has been divided into ten districts with a resident milk control officer located in each one as follows: District No. 1.—A. J. Hauser, 283 Walnut street, Meadville. Erie, Crawford, Mercer, Lawrence, Warren, Venango and Clarion counties; District No. 2—C. G. Gifford, 203 Standard Life Building, Pittsburgh. Butler, Beaver, Allegheny, Washington and Green counties; District No. 3.—W. S. Anderson, Box 294, Ebensburg. Westmoreland, Fayette, Somerset and Cambria counties; District No. 4.—W. C. Sterett, 513 Brandon avenue, Williamsport. McKean, Potter, Tioga, Bradford, Sullivan, Lycoming and Clinton counties; District No. 5—Lott E. Bechtel, Lewisburg, Bedford, Blair, Huntingdon, Mifflin, Juniata, Snyder, Union, Northumberland, Montour and Centre counties; District No. 6.—H. E. Shroat, 28 Evergreen street, Harrisburg, Fulton, Perry, Cumberland, Adams, York, Dauphin, Lebanon, Lancaster, and Franklin counties; District No. 7—D. A. McCarthy, 80 Shoemaker street, Forty-Fort. Susquehanna, Wyoming, Wayne, Luzerne, Columbia and Lackawanna counties; District No. 8.—G. P. Miller, Y. M. C. A., Norristown. Pike, Monroe, Northampton, Bucks, Chester, Montgomery, Delaware and Philadelphia counties; District No. 9.—Carl E. Lewis, Smicksburg. Forest, Elk, Cameron, Jefferson, Armstrong, Indiana and Clearfield counties; District No. 10—W. Hugh Jones, 215 South Richmond street, Fleetwood. Schuylkill, Carbon, Lehigh and Berks counties.

WATER SUPPLIES—Six million of the ten million people in Pennsylvania are now using water for household purposes that has been filtered and chlorinated by water plants. An additional two million secure their water from chlorinated sources which do not require filtration.

The general supervision of this work, designed to protect health, is a function of the Department's bureau of engineering. In addition, the slightest indication of a water-borne disease in any part of the state brings a concentration of expert attention to the water supply in that community.

The spectacular drop in the incidence of typhoid fever in the past twenty-five years in no small measure can be traced to this protection. To this has been added the annual examination of the highway water supplies likely to be used by tourists.

It would seem that this consistent and highly efficient effort on the part of officials would entirely solve the problem. Unfortunately, however, there are thousands of individual rural supplies over which the Department has no supervision. In recent years it has been from these sources that most of the typhoid fever has come.

Rural dwellers could therefore with much logic remove possible typhoid hazards from their properties by requesting the engineering bureau at Harrisburg to make a physical and bacteriological examination of their supplies. Cooperation of this kind will make a marked dent in the already badly crippled power of typhoid fever.

**This Rural Supply was not so Good—How About Yours?**

THE PENNSYLVANIA PUBLIC HEALTH ASSOCIATION—The eighth annual meeting of the Pennsylvania Public Health Association was held in Pittsburgh on the 26th and 27th of May. The scientific sessions were unusually interesting and the lectures were delivered by outstanding men and women in the fields of medicine, public health, nursing and social service. More than 500 people were in attendance.

This Association continues to grow in strength and influence for the general health of Pennsylvania's citizenry.

BUREAU OF VITAL STATISTICS—More than 10,000,000 certificates of births, deaths and marriages are now on file in the bureau of vital statistics. This amazing collection represents an original source from which statistics of this type may be obtained by any citizen in need of it. Thousands of such requests are received and filled each year.

In addition, the bureau compiles and correlates the incidence of the various diseases, thus affording data to the medical officers whose duty it is to evaluate public health preventive measures.

According to the last report, there are approximately 750 registrars throughout the commonwealth regularly collecting the necessary facts —a vital group engaged in a vital business.

INSTRUCTIONS TO PARENTS—Dr. J. Moore Campbell, chief of the communicable disease bureau, recently issued the following instructions with respect to immunity in connection with measles, German measles, chicken pox, mumps and whooping cough: "Please be advised that under the regulations of the State Department of Health, there is no evidence of immunity which your health officer may accept, other than an actual record in his files, or in the files of the Health Department at Harrisburg, of the prior illness with the disease, from which the child is alleged to be immune. Health officers must not issue school attendance permits to so-called immunes, unless such a record has been found, no matter what the statement concerning a prior attack made by the parents, or physician, may be.

"If such a record is not found, all children must be included in the quarantine just the same as though they had not had the disease. The proper observation of these regulations, upon the part of all health officers, as well as parents and family physicians, will be very greatly appreciated by this Department.

"It is respectfully suggested, in order that the work of the health officer be made more efficient by complete cooperation, that he advise all school authorities that the intention now is to carry out the regulations in this matter to the very letter, and that such school authorities must not accept any child from a home which is, or should be, under quarantine, unless that child presents a permit to attend school duly signed by the health officer."

Parents, take notice!

TUBERCULOSIS ACTIVITIES—The fixed population represented at the four state tuberculosis sanatoria, namely, Mont Alto, Hamburg, Cresson and the Crippled Children's Hospital at Elizabethtown, is approximately 2,120. This in itself represents an incalculable amount of preventive and curative work, especially in view of the steady stream of patients that are being admitted and dismissed from these establishments.

However, all of the state anti-tuberculosis work is not accomplished in these hospitals. A report submitted during the last thirty days indicates that in the 100 tuberculosis clinics located throughout the commonwealth more than 4,000 additional patients were enrolled for observation and study. In a recent single month, 369 new cases of tuberculosis were discovered by clinic physicians. Moreover, 1,600 new applicants came to the clinics for examination.

As a further indication of the Department's work along these lines, the Department nursing force followed up the work of the clinics during the period referred to by visiting 5,168 people in their homes; this, for the purpose of checking upon general health conditions.

It would thus seem that while great work has been done and consequently this disease has been lowered from its position as number one killer to seventh in the commonwealth, it is far from being an impotent foe.

Better housing, cleanliness in the home, and removal of contacts, represent some of the major defensive weapons against this, as yet, dread disease. Public health officials can do much, but the individual citizen through his cooperation, can do more.

LABOR CAMPS—The various labor camps established throughout the commonwealth, upon orders of the Governor, have been an especial charge of the Department. This, inasmuch as it has been its business to prevent the invasion of communicable and contagious disease.

To that end the epidemiologists of the Department have been constantly in the field; bacteriological examinations have been made for the purpose of discovering so-called carriers, and the permanent kitchen staff has been subjected to strict medical supervision.

According to a report submitted to Governor Pinchot by Secretary of Health Appel, there has been a surprisingly low incidence of illness in these camps. In fact, from the figures available, it would seem that there was less sickness during the winter among these groups in proportion than among the general population which lived a "softer" life.

**Governor Pinchot Gets First-Hand Information at a Labor Camp**

MEDICAL SCHOOL INSPECTION—The annual medical school inspection of more than 10,000 schools located in the fourth class school districts was concluded March 1st.

It may be surprising to learn that 225,000 pupils in these smaller educational sub-divisions of the commonwealth were reported as having physical defects.

Parents of defective children have already received the "Blue Folder" which contained a report of the physical deficiency and a suggestion that it should be corrected as early as possible.

The Department has done its job in this respect, except to follow up the cases. The real work must now be done by parents. For your children's sake, do it!

THE DEATH DEALING AUTOMOBILE—The number of automobile deaths in Pennsylvania reported for 1931 by the bureau of vital statistics now stands at 2,354. This is slightly under the rate of last year, which may indicate that the high point in the death-dealing power of the automobile has been reached. Speed and impatience seem to be the real criminals. Not only are thousands killed but many more thousands are seriously injured because of a driver's apparent unwillingness to trail another automobile, even for a short distance.

Isn't it poor policy to attempt to save fifteen seconds and risk a life, particularly when the fifteen seconds don't mean anything any way? Gasoline and foolishness represent a major mental disease in the United States. Too bad!

THE LABORATORY'S WORK—The final report for 1931 for the bureau of laboratories indicates that 175,000 specimens were examined, or an average of about 600 for each working day of the year.

No one can even remotely suggest that this staff is not a hard working one. It includes, in addition to Doctor John L. Laird, the director, a personnel of 42, of which 10 are bacteriologists only. A great work well done by a quality group!

A NEW APPOINTMENT—Mrs. Mary S. Evans, of Towanda, Pa., was appointed Directress of the nursing bureau. She brings to her work an active experience as a former nurse with this fine group of professional women.

A CORRECTION—In the March-April number of PENNSYLVANIA'S HEALTH appeared an article on Home Remedies and First Aid by Dr. H. B. Wood. This article as printed was made to appear that the use of mercurochrome was recommended by the writer as a disinfectant for the skin. The addition of mercurochrome to that of iodine was an editorial one. It is the desire of the author of the article to be relieved of the responsibility for this addition.

# Vital Statistics Comment

## TYPHOID FEVER

**Florence Hardy**
*Assistant Statistician*

THERE were 205 deaths and 1,551 cases of typhoid fever registered in Pennsylvania last year. While both these totals represent a decrease from the 1930 figures, they did not attain the low marks of 1928 and 1929. However, as compared with the mortality and morbidity of earlier years the present day incidence of typhoid is negligible. During the past twenty-six years there have been 182,512 cases and 28,010 deaths from this acute infectious disease reported to the Department of Health. The fatality rate for this period is 15.4 per cent.

During the past fifteen years the reduction in typhoid fever mortality has been rapid, due to the extensive safeguards maintained by health agencies. Water purification plants have contributed largely in the campaign to eliminate typhoid. With the knowledge now available concerning this disease, there is every reason to expect a further decline in its rate. In the control of typhoid fever, twenty-five years ago, practically the entire state was the field assigned to the sanitary engineer, today this work is restricted mainly to the locality where typhoid is endemic or where an outbreak of the infection has occurred.

The drought conditions of 1930 resulted in an increase in rate from 2.1 in 1929 to 2.6. This rise was slight, however, in view of the general shortage of safe water supplies and the uncertainty of emergency makeshifts. That typhoid fever was held in check in 1930 is a tribute to the strict vigilance exercised over all sources of infection.

The morbidity reports in 1931 tabulated for age, sex and color indicate that the greatest number of cases occurred in the age period 15-19 years. Of the total, 54 per cent occurred among persons under 20 years of age. On 9 case reports the age was given as one year and at the other extreme 3 were over 75 years. By sex, the cases were divided into 59 per cent male and 41 per cent female. There were only 37 Negroes attacked by the disease. These cases comprised but 2 per cent of the entire number.

Last year the rural districts of the state recorded 73 per cent of the cases. Two strictly rural counties, Greene and Juniata registered the highest case rates for the year and Carbon county the lowest. The highest death rate (15.4) was in Huntingdon county and the lowest (.4) in Schuylkill county.

# ERRATA

## TWENTY-FIFTH ANNIVERSARY NUMBER

### January—February 1932

In the January-February 1932 issue of PENNSYLVANIA'S HEALTH, known as the Twenty-Fifth Anniversary number, a statement appears on page 4, in the article entitled, THEN AND NOW, to the effect that the typhoid fever epidemic at Plymouth occurred in 1895. This should read *1885.*

On page 18, of the same issue, on the last line, appears the following statement: Acting Chief, Anna T. Gaynor, R. N., to date. This should read: *Acting Chief, Elizabeth M. Gainor, R. N., to date.*

On page 17, of the same issue, under the heading, THE BUREAU OF TUBERCULOSIS SANATORIA, Doctor Fred C. Johnson is listed as having been Medical Director at Mont Alto in 1908. This should read: *1908-1919.* Dr. M. O. Kech was Acting Director only for a portion of 1918 instead of during the period of 1909-1918, as indicated in the original article.

A statement appearing at the top of page 24, of the Anniversary issue, referring to the division of school health should read as follows: The division of school health was first organized as a separate division under Commissioner Edward Martin with Dr. George K. Strode in charge. He was succeeded by Dr. William J. Crookston, followed by Dr. J. Bruce McCreary. The division of child health, division of school health and dental division were finally combined to form the bureau of child health with Doctor McCreary in charge of the bureau, and consisting of three sections, designated pre-school, school and dental sections.

# PENNSYLVANIA DEPARTMENT OF HEALTH

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Sanatoria and State Clinics:

1. Mont Alto Sanatorium—Medical Director, R. H. McCutcheon, M. D.
2. Cresson Sanatorium—Medical Director, T. H. A. Stites, M. D.
3. Hamburg Sanatorium—Medical Director, H. A. Gorman, M. D.
4. State Hospital for Crippled Children—Francis S. Chambers, M. D.
5. Deputy Secretary of Health—J. BRUCE McCREARY, M. D.

Child Health—School Control

1. Field Supervision—C. W. Sheldon, M. D.
2. School Sanitation—John G. Ziegler
3. Pre-School—Mary Riggs Noble, M. D.
4. Dental Hygiene—C. J. Hollister, D. D. S.

*Bureaus*

Communicable Diseases ..........................J. Moore Campbell, M. D.

1. Epidemiologists—Harold B. Wood, M. D.  
   Samuel J. Dickey, M. D.
2. Genito-Urinary Diseases—Edgar S. Everhart, M. D.
3. Restaurant Hygiene—Howard M. Haines
4. Tuberculosis—John B. Critchfield, M. D.

Sanitary Engineering ..................................W. L. Stevenson

1. Water Works and Sewerage—H. E. Moses
2. Roadside Water Supplies—Henry P. Drake
3. Industrial Wastes—F. E. Daniels
4. Housing—H. F. Bronson
5. Nuisances—D. V. Ness

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Nursing ......................................Mrs. Mary S. Evans, R. N.
Public Health Education ................................J. Clarence Funk
Laboratories ......................................John L. Laird, M. D.
Drug Control ...............................................Harold V. Smith
Bureau of Inspection ...................................George A. Strine
Vital Statistics ...................................Emlyn Jones, M. D.
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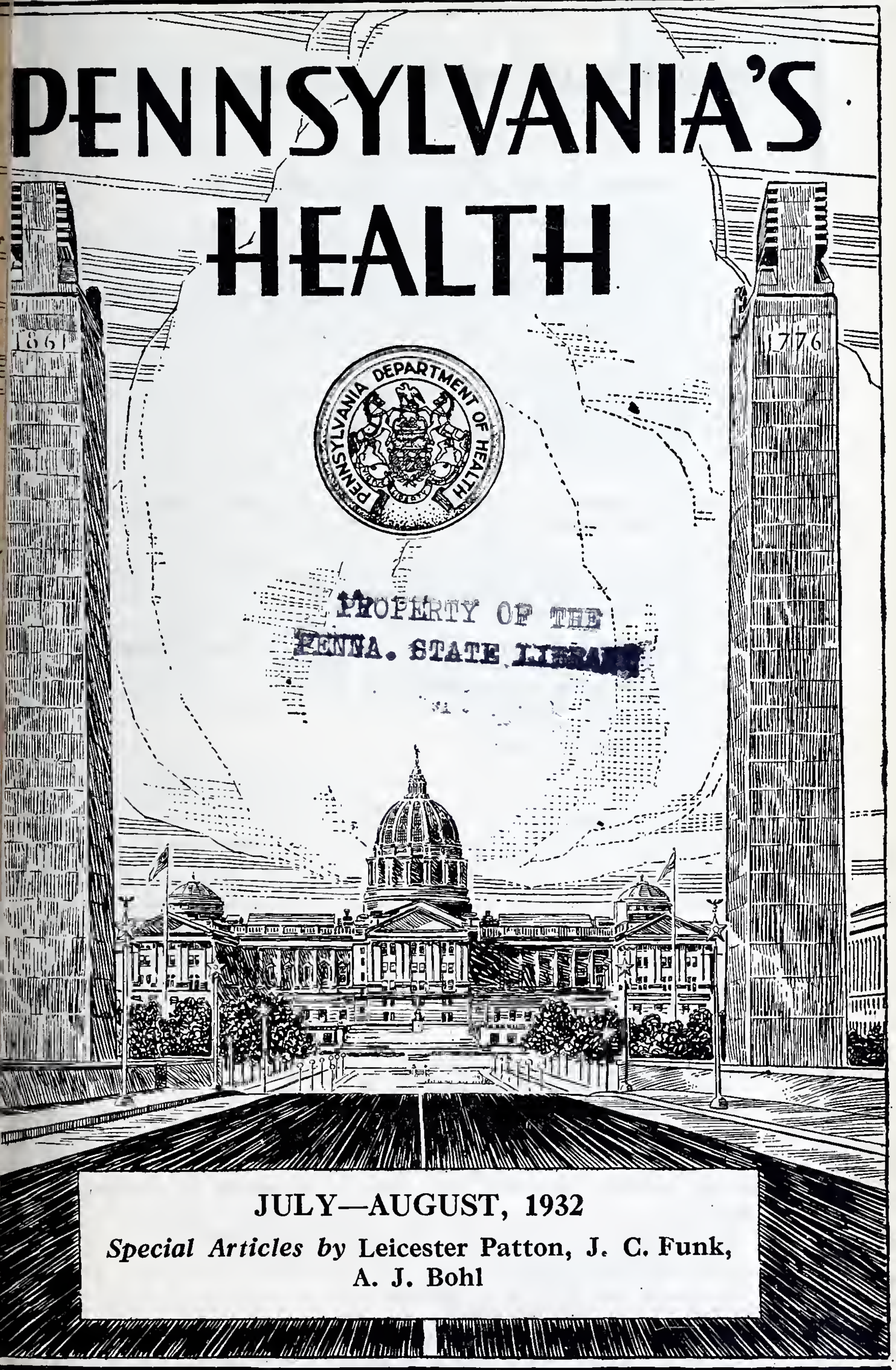

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*Special Articles by* Leicester Patton, J. C. Funk,
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# Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

THEODORE B. APPEL, M. D., Secretary of Health
J. CLARENCE FUNK, Sc. D., Editor

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# Editorial

## THE DEPRESSION AND YOU

THESE are trying times. No one can deny that. But the fact remains that there are many of us fortunate in the possession of sufficient funds for all practical living purposes who have permitted the depression to depress us quite beyond logical limits.

True, in the years leading up to the grand debacle in October, 1929, America was the miracle country. Relatively speaking, no one was poor and most persons were rich. Riding the tops of the waves with fat pocket-books, we were the envy of the rest of the world. Merrily we danced on spending and speculating with machines producing the baubles of life in spectacular quantities, which in turn were purchased under the hypnotic spell of high-pressure advertising. Indeed, if the dollar and the Golden Calf of Biblical times ever approached identity it was during the glittering post-war days.

However, true to the fate of all dictatorships, the dollar ignominiously was toppled from its throne. Thus the realities of life, however unwelcome, have been thrust upon most of us. A readjustment of values has become painfully necessary. But why be despondent over the situation? It certainly isn't as bad as all that.

Why not take stock? Bank accounts have shrunk, stock values have winged out of the stratosphere and dug into the ground; automobiles, radios and over-stuffed furniture have been repossessed and dollars are hard to get and keep. But what about some other very important matters?

Fresh air is still to be had for the taking. Good food is to be purchased at ridiculously low prices. The opportunities for sleep and relaxation are even greater than formerly. Exercise does not demand gold in exchange. Pure water is free for the taking. The life-giving sun still shines as brilliantly as ever. And health, the greatest of life's blessings, can in most instances be had or kept by the daily exercise of reasonable intelligence.

Therefore, instead of groaning over lost dollars let us rejoice in the fact that we are alive and well in this glorious world of ours. And if, perchance, we are not as fit as we might be and can do something to improve our condition, there is no better time to do so than just now.

Yes, "God's in His heaven—
All's right with the world!"

There is no earthly reason for depressing depression and incidentally health, but every good reason to get a lively, vigorous kick out of life as it is today.

J. C. F.

# THE NECESSITY FOR MILK CONTROL IN THE PREVENTION OF DISEASE*

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THE subject of milk, the oldest of all foodstuffs, probably has been more widely discussed than almost any other one; and its relationship to public health has been the primary factor in most of these discussions. From the time when history passes into legend, as in the story of the "she" wolf who nurtured the twins Remus and Romulus, we have had instances of the importance of milk to mankind.

Milk is an important potential agency in the transmission of certain pathogenic organisms, and for that reason, its production and handling must be continuously under the supervision of those specifically trained in this line of work. The diseases most commonly transmitted by this food are typhoid fever, undulant fever, diarrhea, tuberculosis, epidemic sore throat, diphtheria and scarlet fever.

## What Bad Milk Can Do

During the six years 1924 to 1929, there were 258 milk-borne epidemics in the United States, with 10,906 reported cases and a total of 371 deaths. Of the diseases causing these epidemics, septic sore throat ranks first in the total number of cases (4,161); followed by typhoid fever as a close second (4,019); with scarlet fever third (1,974). Of the total deaths, 281 were chargeable to typhoid fever, as were 177 of the 258 epidemics. If a comparison is made of the total number of cases reported in 1929 (1,959) with the average of the five-year period—1924 to 1928 (1,789), it is noted that there has been an increase in the total number of cases, although in the case of typhoid fever, the percentage of deaths had dropped to 68.74 from 76.78; in the case of septic sore throat, the percentage of deaths increased to 27.8 from 19.50.

The two principal sources of infection of milk are from carriers and from cases of disease occurring on the dairy farm. In the report for 1929, it is shown that 76 per cent of the epidemics were caused by these factors, with 90 per cent of all cases and 51 per cent of deaths chargeable to these two sources. Therefore, it is evident that these are the points to be most carefully considered by the enforcement officer interested in preventive medicine. This, of course, involves a comprehensive system of farm inspection by competent inspectors and compulsory medical examination of the employes of the dairies handling the milk supply.

In March, 1920, the city of Pittsburgh began an intensive campaign to raise the quality of its milk supply. The object of this control was to procure for the ultimate consumer an article of food of the highest possible quality and safety. Since the nature of milk and the manner of its handling preclude the possibility of the user being able to judge by appearance and taste whether the milk furnished him is clean and safe, he must depend upon that department of his local government which is charged specifically with the protection of the public health to insure this cleanliness and safety for him.

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*Address before the Seventh Annual Meeting of the Pennsylvania Public Health Association.

*The most important factor in farm inspection is the inspector.* The dairy inspector of the future, to be a success, or indeed to be able to meet the requirements of his position, will need to have a basic knowledge of bacteriology and chemistry so that he can make satisfactory field examinations of samples and be able to interpret the results that he obtains. He will need to have a thorough understanding of the rules and regulations of the organization for which he works, whether as an enforcement officer, or as an inspector for a commercial concern, and of the reasons behind each requirement, in order that he can convince the farmer of the necessity for compliance.

An ideal inspector must possess good judgment and tact; he must be sympathetic toward the farmers' troubles, as well as qualified to give sound advice on the problems arising in the production of milk. He should also have a keen appreciation of the responsibility of his position which, in all cases, is of a dual nature—toward his employer and equally toward the farmer with whom he is dealing.

The Milk Inspector is Constantly on the Job

The inspector's duty is much broader than the mere recording of conditions as he finds them on the farm or in the receiving station. He is an ambassador of education just as much as he is an enforcement official. He should strive constantly to improve conditions, even where the farm is above the requirements of his particular organization, because the purpose of all inspection is to insure a product of the highest possible grade.

## The New Milk Law

There is very little that can be added to the subject of farm inspection at the present time. The aim is to have the condition of the barn and premises such that contamination of the milk is reduced to a minimum The inspection should, of course, cover the herd, the stable, milk house and the utensils. These are familiar points. In Pennsylvania, the first state-wide milk law was signed by the Governor on May 2, 1929, and after a year's preparation the actual enforcement was begun in September, 1930. As indicating the wisdom and far-reaching benefits that may be expected, a brief resume of some of the results attained in the Pittsburgh milk shed in a fifteen-month period will be interesting:

| | |
|---|---|
| Total number of farms inspected | 16,773 |
| Total number of cows on farms inspected | 142,428 |
| Total number of raw milk dairies inspected | 376 |
| Number of cows on raw milk dairy farms | 5,181 |
| Number of milk plant inspections | 488 |
| Number of country receiving stations inspected | 18 |
| Number of farms passed inspection | 12,158 |
| Number of farms on probation—these dairy farms have been given a limited time to improve certain minor conditions | 2,829 |
| Number of farms excluded | 1,105 |
| Number of farms reinstated | 504 |
| Number of farms reinstatement refused | 24 |
| Number of farms quit shipping into Pittsburgh market | 153 |
| Number of new barns built | 25 |
| Number of stable floors and gutters cemented | 725 |
| Number of stable floors and gutters improved | 303 |
| Number of stable walls and ceilings tightened and improved | 415 |
| Number of stables in which additional glass windows were installed | 241 |
| Number of stables cleaned and manure removed | 1,554 |
| Number of stables whitewashed | 9,056 |
| Number of stables, hogs, sheep and poultry removed | 156 |
| Number of barnyards improved and excess manure removed to the fields | 842 |
| Number of barnyards cleaned and conditions of straw sheds improved | 24 |
| New milk houses built | 1,259 |
| Milk houses improved and repaired | 604 |
| Number of direct entrances from stables to milk house closed | 9 |
| Removal of gasoline engines from milk house | 5 |
| Discontinued use of galvanized and enameled pails used as milk pails | 17 |

On March 1st, 1930, there were 55 pasteurizing plants selling milk in the city of Pittsburgh. Of these, seven went out of business; six are buying bottled milk, and seven new plants have had licenses issued, leaving a total of 49 plants at the present time. Practically all these plants have been rebuilt or remodeled; and from figures, which are believed to be correct, about $1,000,000 have been spent on new plants, additions, remodeling and new equipment since the first of March, 1930.

Of the 46 dairies selling raw milk in Pittsburgh, 15 have ceased business within 1930; 17 have built new milk houses; 9 have remodeled their milk houses; and 24 have corrected barn conditions which were unsatisfactory.

## Tuberculin Testing

Among the serious problems causing a great deal of trouble to the enforcement officer are the tuberculin and abortion tests.

Tuberculin testing of cattle really had its beginning in 1898, but it was not until 1917 that the federal government undertook, in cooperation with the states, to eradicate bovine tuberculosis. Since that time, considerable improvement has been shown, although at present there are only three states in the nation which are free from this dread disease—Maine, Michigan, and North Carolina.

In a study made some years ago of 1,220 tuberculosis patients, when bovine tuberculosis was at its peak, it was found that about 10 per cent were suffering from the bovine strain; but, it seems that, in spite of all the publicity given this subject, certain groups of farmers prefer to infect young children with the white plague rather than to have the diseased cattle removed from their herd at a financial sacrifice.

**Pennsylvania is Back of Pure Milk. Are You Getting Your Share of It?**

The question of contagious abortion, aside from its commercial loss, has recently been considered as a detriment to the milk supply, because milk from cattle so infected produces in a human being undulant or Malta fever. According to Keofer, the first case of human infection with Brucella abortus was reported in 1924. Hardy states that the total number of undulant fever cases reported in the United States up to July, 1929, was 1,296.

In the two diseases mentioned, testing of the cattle and segregation of the infected ones will ultimately eliminate the greater portion of danger from these sources. In Pennsylvania, in 1928, approximately one-half of the State showed a considerable percentage of bovine tuberculosis; but by 1930, the Commonwealth was clear except in the southeastern end and some other scattered areas. At the present time, according to the best information available, the entire State, with the exception of the southeastern corner, is free of bovine tuberculosis.

In the plant, the necessary inspection requires the services of technically trained men. From the time the milk is dumped from the shipping container until it is in the bottle and ready for distribution it should be under very strict supervision. This is especially true in raw milk plants. Proper sterilization of all dairy equipment and bottles is essential and must be stressed. In pasteurizing plants, the entire process should be checked quite frequently, and the filed records should be carefully studied between inspections. A more general observance of the requirements that the pipes be taken apart and thoroughly cleansed daily should be the rule. Plants are prone to skimp this work, and it is very necessary that the inspector check this as often as practicable.

One thing for which this organization should work is the reinstatement in the state milk code of the requirement that all employes of a dairy company actually coming in contact with the production and distribution of milk should be under medical certification. This is necessary because, although proper pasteurization is supposed to insure a safe milk supply, it is possible for a carrier of a communicable disease to infect the supply after pasteurization.

### Pasteurization No Substitute for Cleanliness and Sanitation

In the past, the health officers in the large cities have depended upon efficient pasteurization to render milk safe for drinking purposes, and there is very definite information that this has been of inestimable value. As one instance, consider the striking example of the immediate effect and reduction of diarrheal diseases of infants in a children's institution located on Randall's Island, New York, where a mortality of 44.36 was promptly reduced to 19.8 when milk was pasteurized, with no other additional hygienic measures.

It has only been within recent years, however, that emphasis has been placed upon the fact that pasteurization is not a substitute for cleanliness and sanitation in the production of milk. If milk is produced under conditions which do not guarantee freedom from manurial pollution and possible contamination from dirty utensils, pasteurization can render it safe for drinking, but does not render it clean, for it is believed that milk which is high in bacteria is not a wholesome food for either infants or grown persons.

Milk as it comes from the cow is practically free from bacteria, and the organisms that enter thereafter increase very rapidly, under favorable conditions, so that the consumer may get a product that is heavily contaminated. Some of these organisms may be saprophytes, which are innocuous; other produce changes in odors or tastes or proteolytic alterations; while still others are pathogenic and will produce disease in man.

To repeat: It is, therefore, necessary that milk, from the time it leaves the udder until it reaches the ultimate consumer, be under such supervision and control as will prevent its contact with potential sources of infection, or that such contacts be reduced to the minimum.

# The Health Gnome Says—

In these sad days of stress and strain,
When all things look so blue;
Might it not be well to ponder—
Why all this cry and hue?

Stocks and bonds and things like that
Have taken quite a fall;
But so long as one has health and life,
What difference—after all?

The really worth-while things in life
Are yet fortunately at par;
And while a flattened pocket-book is bad,
Ill health is worse, by far.

So, if your money in the bank
Seems to have gone astray;
You still are rich and lucky
If your health hasn't gone that way.

Guard it therefore carefully,
It is your prize possession;
For just as long as you have that—
There can be no real depression!

*J. C. F.*

## THE-OTHER-CASE IN THE TUBERCULOSIS FIGHT

**J. Clarence Funk, Sc. D.**
*Director, Bureau Public Health Education*

ONE of the greatest romances in the history of mankind is the fight against disease. No more brilliant example of man's superiority can be found than in his successful attacks against many of the scourges to which humanity has been heir.

For example, smallpox, which years ago took its toll by the hundreds of thousands, has become a negligible factor, thanks to vaccination. Diphtheria, which not so long since displayed such a cruel affection for children, has been laid low through the toxin-antitoxin control and the prompt administration of antitoxin in diagnosed cases. Again, typhoid fever, which annually marked thousands for its victims, now scarcely lifts its head; and for this happy situation the present-day methods of assuring safe water and milk must be given much credit.

Indeed, in the mass prevention of disease an amazing and spectacular chapter has been written. And the story of the discoveries upon which it is based is a most fascinating one. This tale, however, has been told many times.

The point now to be emphasized is that in spite of the almost unbelievable conquests of many of the former major killers, there yet remain numerous conditions concerning which public health officials cannot be the least boastful. Moreover, officials are comparatively helpless regarding them. And more is the pity.

Somehow, possibly because of the thrilling and widely advertised success involved, the vast majority of persons conclude that public health efficiency automatically removes all obligation on their part to do anything in the furtherance of their own welfare. Unfortunately, however, it is quite impossible to delegate the care of personal habits to public servants. Nature is entirely too individualistic for that.

Therefore, we have the sombre picture of thousands of people surrounded by public health safeguards not even dreamed of a generation ago, literally devitalizing themselves, living on a low health scale, and some actually though unconsciously committing slow suicide, simply because they are thoughtless and unconcerned regarding their own well-being.

Thus it is that heart disease, in its various manifestations, is taking an increasingly alarming toll each year. Attracted by present-day, high-speed living and high-tension habits, thousands of persons of middle age and older habitually go the pace day and night, overtax their strength, undermine their vitality, neglect the annual physical examination and finally end up in the bureau of vital statistics on the heart-fatality records.

Again, cancer—that most pain-provoking and torturing of all diseases—is yearly gaining in death-dealing strength largely because those who are visited by it fail to concern themselves with its early manifestations. And so the deplorable story of personal carelessness and indifference might be continued.

True, when tuberculosis is considered, there is a somewhat different record—one which is indeed a credit to that vast army of scientists, physicians, nurses and social workers who for twenty-five years or more have stepped into the first-line trenches and inflicted serious losses upon the enemy. As a matter of fact, to reduce tuberculosis from its preeminent position of number one killer to that of sixth on the list in a quarter century was a magnificent piece of scientific fighting.

But the very fact that these inroads have been made, thanks to medical science, better housing, higher standards of living and the arresting influence of clinics and tuberculosis sanatoria, has developed an entirely unjustifiable complacency on the part of many.

Unlike diphtheria and typhoid on the one hand, and heart disease and cancer on the other, tuberculosis possesses characteristics of both so far as control is concerned. The public health phases, as indicated, have been functioning splendidly for decades. On the other hand, the sense of obligation on the part of those who in the first instance come in contact with the actual patient has frequently not been acutely developed. And so far as the patient himself is concerned, he too often has blissfully gone on his way ignoring the more or less persistent cough and steady decrease in strength until the disease has fatally dug in.

**The Sanatorium and the Sun are Making These Victims of The-Other-Case Well**

Carelessness of these types directly results in exposing other members of the family or close associates to the infection, and the vicious "source" case results.

In order to emphasize the great hazard of The-Other-Case the annual educational campaign of the National Tuberculosis Society is this year attempting to drive home the fact that tuberculosis begets tuberculosis. Somehow the general public must be made to realize that to a large extent the fight is now in their hands. Indeed, it is not too much to say that the public health factors have already reached their full stature and that the continued strength or weakness of the enemy largely will be determined upon individual action.

It should be understood that the peculiar habit of tuberculosis to impose itself upon families is not based upon inheritance, as was formerly believed, but because it is communicable. Really, no more certain fact exists than that this malady to a great extent is transmitted through intimate and prolonged exposure to a so-called "open" case.

Or to put it in other words, tuberculosis from a control standpoint can for all practical purposes be considered a "source" disease. And for that reason every case must be traced back. As has already been intimated, much greater effort in that direction must be made than is being exerted today, if tuberculosis is to bite the dust.

Frequently, painstaking investigation will be required, but like the Royal Canadian Mounted—the doctor, the nurse, the social worker and the members of the family must all pull together to get their man or woman as the case may be.

Naturally, the quest will be determined upon conditions. If a physician is first called in, he doubtless will suspect every person in the house until it is proved by scientific tests that they are free from infection. In this case, the public health nurse and the social service worker will likely be put on the trail to ferret out the offending "source," bring it under professional supervision, and thus eliminate it as a further hazard to others.

Locate The-Other-Case and the Sanatorium Will Have Much Less to Do

But the sad point is that the physician is often entirely out of the picture. The family thus failing to recognize the situation, unsuspectedly harbors the open case in their midst until finally a visit to the doctor is made because of the failing strength and downright illness on the part of this subject, or if of the latent carrier type, on the part of one of the members.

As a case in point, a small child recently was brought to a clinic with all the evidences of advanced tuberculosis. This organization, with its trained personnel of physicians and nurses, took up the hunt for the "source" case. In this particular instance a grandparent, who for years had worried along with a chronic cough, was conclusively proven to be the offender.

But this was an easy problem to solve compared to many that constantly are arising. Consciously or unconsciously, many persons attempt to escape what they regard as the stigma of tuberculosis by concealing important data. Others are entirely unaware of the real source. Intelligent and cooperative persistence in tracing the case thus become absolutely essential.

Unquestionably, the fight against tuberculosis has narrowed down. The open warfare has removed the obvious carriers, but the enemy's resources in the form of concealed or unsuspected cases represent a dangerously challenging situation.

Team work on the part of the doctor reporting the case, the clinic with its home-care advice or institutional disposition, the patient himself with his earnest cooperation, and the nurse and social service worker on the never-ending quest of the source case—such team work, if conscientiously and consistently applied, should reduce tuberculosis to the much-to-be desired state of relative impotence.

Science has done its part against this dread disease and will vigorously continue to do it. But the fight will not be won without the sincere and active cooperation of all those who, professionally or otherwise, are associated with the vexatious problem of the source case.

The order therefore is a peremptory one. It brooks no temporizing. It is the command militantly to move against the enemy. And that command is, "Find the other case!"

## ATHLETICS AND YOU

### A. J. Bohl

*Supervisor of Health Officers*

JUST on its face it seems as though the two words, athletics and health, should be synonymous, doesn't it? When you hear somebody called an athlete, you picture in your mind a husky, well built chap, good at baseball or football, or golf or tennis. It does not follow though that he is altogether healthy, despite his being on the right track.

Do you happen to remember, along about thirteen or fourteen years ago, when Uncle Sam corraled several millions of his boys and stuck them into training camps? About half of those fellows who were supposed to be the flower of America's manhood, failed utterly in the acid test of physical fitness. They weren't healthy; they weren't athletic. And Uncle Sam had to weed out plenty of them who simply didn't have the stuff in them to make good soldiers. And what he did with the rest of them!

A lot of these boys had stoop shoulders and funny walks, they stuck out and caved in at the wrong places. Army officers took them out in the middle of a big field, stood them up and put them through a whole bag of athletic tricks. Inside a month they were strong men, had good husky muscles; and the athletics they were compelled to undertake, plus the good food, open air life, regular hours and sleep, paid them dividends in health.

But we all can't take such a course as this, and probably would not if we could. Let us see what the average fellow gets out of life. He sleeps eight hours a day, works eight hours, and spends about six hours in eating and dressing, which gives him just two hours a day for himself. Between the ages of twenty and fifty he has about two and one-fourth years in which to do as he pleases. That spare time is when he really lives, and in it he must or should include his keeping-fit program.

Just a very cursory examination of the people you see on the street will show you a lot of under-developed men and women, and boys and girls too, who might be strong and husky human beings if they would just use a little time and effort to that end. It takes only a few minutes to learn something about proper living and how to exercise, to learn the "how" of athletics. You don't need to try to be one of the big muscle boys whose pictures you see in the back pages of the magazines. All you do need is good hard muscles, no fat at the waist line, good wind and good posture. And if you have those you'll probably have good health along with them.

Just remember what you do with your car. If you get a knock in the engine, some mechanic has a job right away. You have the carbon cleaned. Moreover, you have the old bus greased regularly, and you use the best oil and gas you can get. You keep the old tea kettle looking and running just as well as possible, and you never forget that it has a trade-in value.

But you, you don't have a trade-in value, and you can't get any spare parts for the human engine. You may get yourself patched up, depending on what's wrong with you, but you are never quite as good as you were before. So, in order to keep that priceless health of yours, it is a lot better to cultivate good habits of eating, living, sleeping and exercising, than it is to try to come back after you've lost it. And athletics most decidedly will help.

Do not get the idea that athletics means playing football or baseball. Grantland Rice, who is perhaps the world's greatest sport writer, tells us that in a football game lasting two hours there are only from twelve to fourteen minutes of actual play. Now, if a football player is an athlete, and I think we can take that for granted, then the average fellow can also be an athlete, simply by giving a quarter hour a day to the improvement of his own body by exercise. And he can do this without any possibility of losing his life or seriously injuring himself. A bar bell, chest weights, or even a three-foot length of broomstick is all you need in the way of apparatus, and you don't even need these, for there are plenty of simple exercises that will improve your posture, your breathing, your muscles and your general health which need no apparatus of any kind.

But, in this discussion I must inject a precautionary note. Twenty years ago, nearly twelve thousand Pennsylvanians died of heart disease. One hundred and fifty-one of each hundred thousand of our population! In 1930, twenty-two thousand, three hundred and fifty-nine died from this cause, which is almost two hundred and thirty-two of each hundred thousand. It doesn't take much thought to realize that heart disease is on the increase. Actually, heart disease is today the major cause of death in Pennsylvania.

Athletics, almost any form of athletics, has some effect on the heart. The man who doesn't take exercise doesn't overtax his heart at all, doesn't put any strain on it. But the long-distance runner, or the sprinter, puts a terrible strain on his heart. The weight lifter, the wrestler, the tennis player, all do likewise, and the old pump, if it is not in the best of condition, simply will not stand for any abuse. It'll just quit pumping, just lay down on the job. And that's the end!

Now, if you are going in for athletics, or if you are at present one of the ever-growing fraternity of those who like to be in good condition, by all means have your own physician give you the once over. Have that heart tested, and find out if you can safely put an unfamiliar strain on that most important part of your anatomy.

And here is a fact. Athletics, games and exercises must be fitted to the fellow who is going to do them or rather he must be fitted for the game he's going to play. I've seen men go into a gymnasium, men with no biceps, no stomach muscles, just soft all over, and put in anywhere from a half to a full hour of strenuous exercise. Strenuous for them of course, for they couldn't do any of the tough jobs. And I've seen those same fellows a day or so afterwards, and did they ache. Those men should have taken it easy, but they had the mental attitude that they were just as good as anybody, and so they proceeded to prove it. They didn't fool anybody but themselves, of course.

Just look around you, you see some of your friends slipping, you see them getting pasty complexions, bay windows and all the rest of the degeneration of the human body that comes from neglect, but they themselves do not see it, and so they go on from bad to worse.

But athletics, properly applied, will do away with all that, if you have no disease of the heart or other organs that would make athletic effort unwise. Properly applied exercise, while it is not a cureall, will relieve many of the causes of poor health. I don't mean diseases, of course. Let me tell you of an actual case.

During the winter of 1930, a slender, small man entered a gymnasium. He wasn't so bad, had pretty good biceps and back development, but he had a terrific case of ptosis—dropped stomach. He had indigestion and discomfort, and that dropped stomach gave him a very poor appearance. Now, this is the truth; in three months that man had developed real abdominal muscles. There's a long, flat muscle, the restus abdominis, that hooks into the ribs at the upper and the pubic arch at the lower end. That muscle holds up the abdominal organs, compresses them. This man developed this particular muscle to such a degree that his dropped stomach was pushed back into place, his digestion improved and his discomfort disappeared. It cost him a little money, for his trousers didn't fit him, but it paid mighty good interest on the time and money he spent.

And there are lots of other things that can be improved. The man who takes regular exercise burns up more of the excess food that all of us eat. He isn't too fat nor too thin. He looks better, feels better, sleeps better. No fooling, applied athletics, which doesn't mean a lot of indiscriminate bag punching, can mean health to most of the men and women who are organically sound and who are willing to make the effort.

Most of us are healthy in a negative way. We are not sick, is what I mean. We can go to work, play bridge or sit in the movies, but we don't have that gilt edge health that comes to the chap who lives a regular life and is a hound for exercise. He has something that the rest of the crowd applauds, envies, desires, but isn't willing to work for.

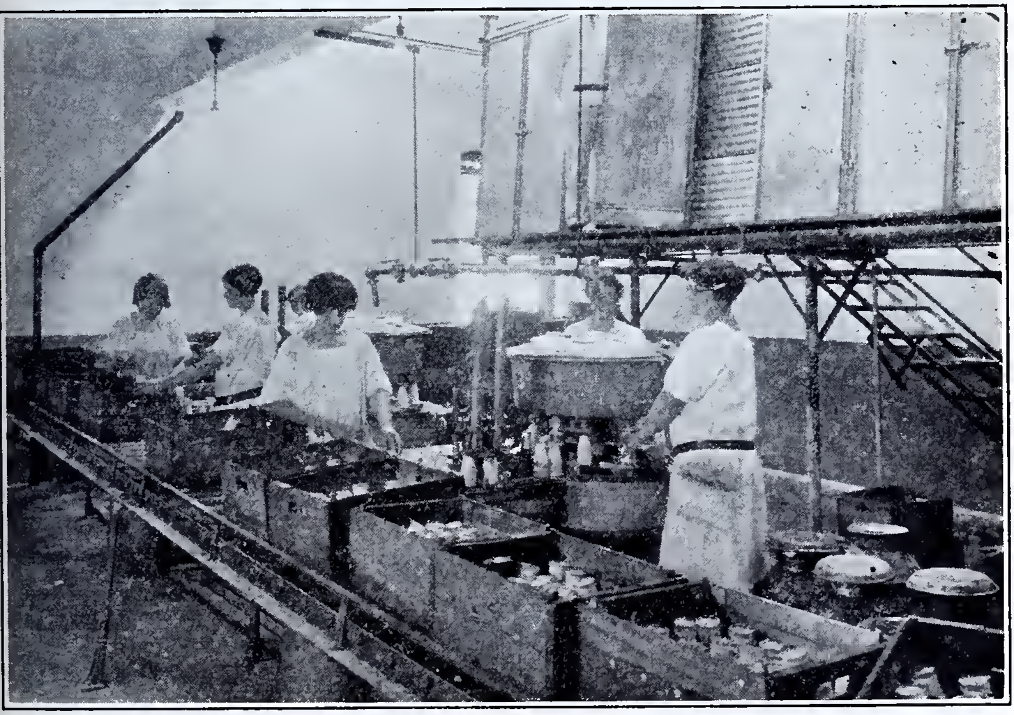
If you want that real vitality, you'll have to go after it. Remember, that the athletic doesn't have to be a star. The dub can feel just as good, get just as big a kick out of life as the boy who gets his name in the papers. Therefore, if you are hunting health, try athletics, even though you turn out to be only a dub at your favorite game. The real joy of life will be yours none the less.

## DEPARTMENT NEWS

FALLS—In a recent report submitted to the Secretary of Health by the bureau of vital statistics, it was indicated that 8193 persons lost their lives in Pennsylvania during 1931 through accidents. It is interesting to note that of all fatal accidents, falls took second place, claiming 1,782 lives.

In discussing the deaths from falls, the Secretary of Health said, "A detailed study of the accident reports for 1931 reveals that 99 persons were killed by falls from wagons. This shows that the old farm wagon and the horse-drawn delivery vehicle still claim a comparatively heavy toll of life each year. A history of these falls would probably show, as do most other accidents, that they are caused by carelessness which is usually tied up with the national speed mania."

America is known throughout the world for its speed. And the present depression does not seem to have had any retarding effect upon this habit. If speed added to the joy of life and to the years of living, it might be pardonable, but since its effect is usually the opposite it is indeed too bad that most of us are controlled and directed by this hurry-up idea.



**The Modern Dairy is Sanitary and Clean**

THE STATE SANATORIA AND MILK—The daily milk consumption at the three sanatoria approximates 4,500 quarts. This represents practically two quarts a day for each patient—child and adult. This, of course, does not mean that two quarts of milk are directly consumed by each patient every day as it includes all the milk used in cooking. Nevertheless, the standard of two quarts per day for each patient is maintained steadily.

Incidentally, a quart of milk daily in some form for all well persons—young, middle-aged and old—would be a splendid rule to follow. Milk is nature's food; and to deprive one's self of his daily quota in the face of its health-giving power is thoughtless, to say the least.

Investigations indicate that the average well person usually is an under-consumer of this valuable product to life and health. Therefore, while the following may sound like an advertisement, it is merely a logical direction in the interest of health conservation: Drink, or in some form consume, a quart of pure milk a day.

GOOD RECORD—A statement issued by the Secretary of Health showed that of the major diseases pneumonia and tuberculosis for a recent ninety-day period fell below the record of the two preceding years. Moreover, among other reportable diseases, there was an unusually low rate for erysipelas, German measles and spinal meningitis. While such reports are gratifying they nevertheless serve to indicate the necessity of forever being on the job, both officially and personally.

The State Health Department and allied agencies will continue efficiently to perform the preventive services within their capabilities. If the average citizen would realize and practice the personal habits which lead to the development and maintenance of health, the magnificent records thus far written in the vital statistics' books could be almost unbelieveably improved upon. Perhaps a little less talk about depression and a little more logical thought about the state of our health is in order. What do you think about it?

FLIES—The fly is ten-fold more destructive than the poisonous reptiles of the tropics. Moreover, it has properly been blamed for more sickness and deaths to the human race than any other insect or animal. The fact that flies are common and lack stingers has largely been responsible for the general complacency regarding them. Such efficient criminals, however, have no logical place in the lives of human beings except to swat them and destroy their breeding places. If you have not already become an active enemy against the house-fly, do not delay any longer. And this goes for rural and city dwellers alike.

TYPHOID—Reports arriving daily at the Department indicate that so-called summer or vacation typhoid is with us again. It is too bad that automobilists, under the temporary enthusiasm of an excursion into the less traveled sections of this and other states, will drink from unapproved water and milk supplies.

Taking pure water and milk largely for granted because of the supervision in cities and boroughs and along main and secondary roads, thousands of people assume that the unsupervised and untested individual water supply is perfectly safe to drink. And some of them consequently drink typhoid germs—and die! It is the old story of personal responsibility. It is too bad indeed that the typhoid fever rate, which has been miraculously reduced in Pennsylvania, is not absolutely eliminated; and this, solely because of personal carelessness. This is the fact none the less.

THE PENNSYLVANIA PUBLIC HEALTH ASSOCIATION—The officers for the Pennsylvania Public Health Association during the coming year who were elected in Pittsburgh at the recent meeting are:

President, Dr. Henry Field Smyth, Philadelphia; first vice-president, Allan Kirby, Wilkes-Barre; second vice-president, Dr. Harry B. Burns, Pittsburgh; secretary-treasurer, Dr. John R. Conover, Pittsburgh; assistant secretary-treasurer, Arthur M. Dewees, Philadelphia. J. Clarence Funk, chief of the bureau of public health education, was again named the executive secretary. The executive committee is composed of the following: Dr. Theodore B. Appel, C. B. Auel, Irwin; Dr. T. B. Crittenden, Wilkes-Barre; Thomas W. Henderson, Washington; Mrs. Charles H. Miner, Wilkes-Barre; Dr. C. B. Maits, Pittsburgh. Delegate to the American Public Health Association, Dr. C. B. Maits. The next meeting of the Association will be held in Wilkes-Barre.

**Officials Do All They Can to Insure Safe Water Supplies—The Trouble Comes When the Individual Forgets His Responsibility**

RURAL HEALTH CARS AGAIN ON THEIR WAY—Two health cars are now operating in the rural sections checking up on the pre-school child for the purpose of having deficiencies corrected by the family physician prior to admission to school in the autumn. Car number one will spend most of the summer in Westmoreland County, while car number two has been detailed for work in Potter, York and Lebanon counties.

These mobile units are manned by physicians, nurses and dental hygienists. "Customers" are developed at the instigation of the Department's field personnel through local Parent-Teacher Associations and allied groups. A great work of health conservation indeed!

GORGAS MEMORIAL ESSAY CONTEST—The state winner for Pennsylvania in the Annual Gorgas Memorial Essay Contest was Orvis Joseph Undercoffer, of the St. Francis High School, Clearfield. The judges for Pennsylvania were: Dr. Theodore B. Appel, Secretary of Health; W. G. Moorhead, chief of the bureau of physical education, State Department of Public Instruction, and Hon. Richard J. Beamish, Secretary of State.

Nearly 5,000 manuscripts were submitted by high school students throughout the nation. The finalist in this contest who was picked from the state winners was Harriet Jones, of the St. Agnes School, Albany, N. Y. President Hoover, as honorary President of the Gorgas Memorial Institute, presented the prize of $500 in cash to the national winner, in addition to the $200 travel allowance to receive the reward. The subject of this year's essay was, "Mosquitoes, Their Danger as a Menace to Health, and the Importance of Their Control." Congratulations to Orvis Joseph Undercoffer and to Harriet Jones!

**Rural Health Conservation on Wheels**

SUMMER CAMPS—The annual inspection by personnel of the engineering and communicable disease bureaus has been under way for some time in the hundreds of summer camps located in northeastern Pennsylvania and other sections of the Commonwealth.

The Department is exceedingly solicitous regarding the physical welfare of the many thousands of children and adults who avail themselves of the splendid camping facilities in Pennsylvania. Insofar as is possible, the health officials see to it that all hazards to disease are reduced to a minimum and that safe milk and water supplies, as well as uncontaminated swimming pools, are afforded.

AIRPLANE CRASHES—It is interesting to note that in 1931 but 13 persons died as a direct result of airplane crashes within the confines of Pennsylvania. This mortality compares to the record of the motor car in every forty-eight hours! Who said airplane travel is hazardous?

AN IMPORTANT BOOK—The key volume to all the reports of the White House Conference on Child Health and Protection is entitled, "The White House Conference, 1930." This volume contains the leading speeches delivered at the conference, and abstracts the committees' reports with their recommendations.

This is a valuable source book and guide for all those whose chief concern is the welfare of children. It epitomizes the many volumes which have been published by the White House Conference. This volume may be obtained at a small cost by addressing Katharine Glover, Editor, White House Conference on Child Health and Protection, Interior Building, Washington, D. C.

**On Your Vacation Drink Safe Water, Boil the Baby's Milk If Source is Doubtful, and Drive Carefully**

A LONG AND INTERESTING SERVICE—Dr. W. E. Matthews, county medical director for Cambria county, is the subject of two newspaper articles which recently appeared in the *Johnstown Tribune.* These items indicate Dr. Matthews' activities as an inspector for the State Board of Health in investigating a water supply contaminated with typhoid fever germs, the original statement appearing in these articles having been printed in the *Tribune* forty years ago!

Dr. Matthews has been continuously in the service of the Department, in addition to conducting his private practice, for this length of time, and is not only efficiently but robustly continuing to serve the people of Cambria county as county medical director.

In congratulating Dr. Matthews upon this splendid record recently, he replied, "Forty-three years ago in Cambria county we had an average of 500 to 1,000 cases of typhoid fever every year, with a death rate of 10 per cent. Think of what has taken place since that date!"

It has certainly been Dr. Matthews' splendid experience to see the magnificent strides that have been made against typhoid fever and other death-dealing diseases. Which emphasizes the comparative recentness of modern methods in disease prevention.

CANCER PRIZE ESSAY CONTEST—Dr. J. M. Wainwright, chairman of the Commission on Cancer, of the Medical Society of the State of Pennsylvania, recently announced that the second prize essay contest on cancer would be limited to nurses in public health work.

Last year a prize essay contest was held in Pennsylvania under the auspices of the State Medical Society on "How a Nurse Can Help Diminish Deaths in Pennsylvania." The contest was open to pupils in any accredited hospital in the State. Nearly 70 nurses competed, and many very excellent essays were entered. The $50.00 cash prize was won by Miss Ruth Princetta Shapelle, of the Wilkes-Barre General Hospital.

This year's contest is limited to nurses doing visiting work for state or municipal health departments, private organizations or insurance companies, Red Cross, business corporations, hospital social service departments, etc. The competing nurse must be a field worker and not an executive, or not doing office or clerical work. Those whose duties are divided will be eligible if at least seventy-five per cent of their time is spent in the field. If any nurse wishing to compete is in doubt as to her standing in this connection, she should consult the Commission on Cancer, by addressing a letter to Dr. J. M. Wainwright, Chairman, Medical Arts Building, Scranton.

The subject this year will be "The Function of the Public Health Nurse in Cancer Control." The essays must not be longer than 2,000 words, and must be submitted typewritten in duplicate and signed, not by the contestant's name, but by a nom de plume. A sealed envelope must be enclosed bearing the nom de plume on the outside and the address on the inside. The prize will be $50.00. Essays must be mailed not later than December 1, 1932. The award will be made, as last year, by the State Board for Examination and Registration of Nurses. The essays must be forwarded to the Cancer Commission of the Medical Society of the State of Pennsylvania, 609 Medical Arts Building, Scranton, Pa.

# OFFICIAL COMMUNICATIONS

## Communicable Disease Control in Schools

August 1, 1932

FROM: The Supervisor of School Sanitation.
TO: City and Borough Superintendents of Schools.

The close cooperation of the Superintendent or Principal of Schools with the local Board of Health is highly essential in the proper control of communicable disease and to avoid uncalled-for absences. Teachers and school nurses must carefully observe first signs or symptoms of possible communicable disease and immediately exclude, and notify Board of Health, or in Third Class School Districts at once refer to the School Medical Inspector, all suspected cases in accordance with the law.

In order to have complete cooperation, there are five important forms or blanks that every local Board of Health is required by law to have and use, as follows:

1. Physician's Morbidity Report to the Board of Health.
2. Notice to Teachers of Quarantine Established.
3. School Attendance Permit for Immune Children from Quarantined Homes.
4. Physician's Request for Release from Quarantine.
5. Health Officer's Certificate of Release from Quarantine. (Required for readmission to school.)

In order to facilitate the securing of these forms, the Department has arranged with Kurtz Bros., Clearfield, Penna., and Roberts and Meck, Harrisburg, Penna., publishers of school and health supplies, to print these standard forms and keep them on stock so that Boards of Health can secure them at any time and in any quantity from these publishers.

We suggest, therefore, that before the opening of your school term, you confer with your local Board of Health in order to assure yourself of a complete understanding in reference to the prompt issuing of reports to teachers that the incidence of communicable disease during the school term be kept at a minimum.

JOHN G. ZIEGLER,
*Supervisor, School Sanitation*

## Narcotic Enforcement

August 5, 1932

Attention is called by Harold V. Smith, chief of the Bureau of Narcotic Drug Control, to several important changes of law which materially strengthen narcotic enforcement in Pennsylvania.

Among the exemptions originally allowed by the Pennsylvania Anti-narcotic Act, were preparations, remedies and compounds not containing more than two grains of opium, ¼ grain of morphine, ⅞ grain of heroin, or one grain of codeine per ounce. Sale of proprietary medicines, household drugs and preparations coming under this exemption has been quite general.

However, Act 228, approved June 22, 1931, amends what is commonly termed the pharmacy practice act in several important particulars. This amendment provides that, "It shall be unlawful to sell drugs, medicines, or poisons at retail . . . unless the person so doing shall be a pharmacist or assistant pharmacist."

This act does not prevent the sale or manufacture of proprietary medicines; nor prevent storekeepers from dealing in and selling commonly used household drugs or proprietary medicines when sold or offered for sale in original packages . . . provided that said medicines or drugs do not contain any opium, coca leaves, chloral, or any of the salts, derivatives or compounds thereof in any quantity whatsoever. Paregoric is the most commonly known preparation prohibited under this amendment, and cannot be legally sold except by pharmacists and assistant pharmacists.

It is a misdemeanor to violate this law, and conviction involves a fine from $50.00 to $500.00, or imprisonment for one year, or both.

An important amendment to the Pennsylvania Antinarcotic Act, itself, is made by Act 227, approved June 22, 1931. This amendment raises the penalty for violation from a misdemeanor to a felony, and upon conviction the guilty person shall be sentenced to pay a fine not exceeding $2,000.00, or to undergo an imprisonment not exceeding five years, or both, at the discretion of the court. This penalty applies only to violations of the antinarcotic act, and is not to be confused with the penalty for violations of the pharmacy practice act first mentioned.

## Sanitary Orders

August 2, 1932

The enforcement of the Camp Regulations becomes more important each year as the camps increase along the highways. You should therefore complete the inspection of the camps as soon as possible, reporting on Form 674, and posting copies of the Camp Regulations at each camp.

You will note the definition of the term "Camp" in the Regulations and that "Camp" includes any piece of land used by the public for camping purposes whether it is advertised as a camp or not.

Collect samples of water only at those camps which do not have posted an approved water placard issued by this Department. For each supply sampled fill out the water supply report form, marking it plainly, "Camp Supply."

You should have the following supplies (please forward your requisition at once):

Rules and Regulations for Camps.
Form 674—Camp Inspection Sheet.
Camp Regulations on Cardboard for posting.
Form 635—Report on Private Water Supply.
Bottles for Bacterial Samples (two for each supply).

Reinspections should be made often enough to insure compliance with the Regulations. Report all reinspections on Form 674, but marked "Reinspection."

Endeavor to secure permanent abatements and do not be satisfied with the temporary abatement which makes necessary many reinspections.

HOWARD F. BRONSON,
*Housing Engineer*

By direction of:
J. Moore Campbell, M. D.,
*Chief, Bureau of Communicable Diseases*

## Milk Control

July 30, 1932

SUBJECT: Information Pertaining to Applications.
TO: District Control Officers.
FROM: Robert F. Brinton.

It is now over three years since Act No. 428 has been passed and there is no reason why all milk dealers should not be complying with the Law.

You will, therefore, not approve the applications of any dairies who, in your judgment, are not complying with Act No. 428 and the Advisory Health Board Regulations, and recommend for a hearing to revoke their permits before the Secretary of Health or a prosecution before a magistrate all persons who have failed to meet the requirements of the law.

You must realize when taking legal action that information is necessary pertaining to all visits and as you will be the chief witness it is very important that your records are accurate and specific.

## Pasteurized A Milk

*In Accordance with Section* 4, *of Act No.* 428, *Entitled: "An Act to Safeguard Human Health and Life," Etc., the Secretary of Health has Approved the Following Definition for "Pasteurized A Milk" in this Commonwealth.*

1. "Pasteurized A Milk" shall meet all the requirements of Act No. 428, approved May 2, 1929, and the Advisory Health Board Regulations, approved September 18, 1929, pertaining to the sale of "Pasteurized Milk."

2. "Pasteurized A Milk" shall be obtained from a cow or cows determined by physical examination and tuberculin tests, conducted in accordance with the rules, regulations, and practices of the State Department of Agriculture pertaining to the Individual Accredited Herd Plan or the Modified Accredited Area Plan, to be free from communicable disease.

3. Each cow from which milk is obtained for sale as "Pasteurized A Milk" shall receive a physical examination by a licensed veterinarian, employed by the person responsible for the sale of "Pasteurized A Milk," at least once during the year for which a permit is issued for the sale of milk. The record of such an examination shall be kept on file at the milk plant where the milk is delivered or at another designated place and shall be subject to the inspection of any municipal or State Health authority having supervision over public milk supplies.

Any cow having a diseased udder or other physical defect which, in the judgment of the veterinarian, renders the milk unsatisfactory for use in the preparation of "Pasteurized A Milk" shall remain under the supervision of the veterinarian until the condition of the cow is such that the milk is satisfactory for use in the preparation of "Pasteurized A Milk." Any milk producer not satisfied with the examination report of the veterinarian shall have the privilege of appealing to the Director, Bureau of Animal Industry, State Department of Agriculture, whose decision shall be final.

4. The containers, utensils and equipment used in the milk plant in which milk is received from the dairy farm or prepared for sale as "Pasteurized A Milk" shall be cleansed by the use of steam or water as set forth in the Advisory Health Board Regulations of September 18, 1929, prior to handling milk for sale as "Pasteurized A Milk."

5. Containers used in delivering "Pasteurized A Milk" to the consumer shall have the pouring lip protected until delivered to the consumer.

6. Milk purchased for pasteurization and sale as "Pasteurized A Milk" shall be milk of low bacterial content. Milk of this designation shall be under the supervision of a laboratory, the equipment and director of which having been approved by the Secretary of Health. The bacteriological analysis of the milk shall be in accordance with the "Standard Methods of Milk Analysis of the American Public Health Association and the Association of Official Agricultural Chemists." A bacteriological analysis shall be made at least once each week of the milk as delivered from each dairy farm to the milk plant.

The person responsible for the sale of the milk shall, not later than the tenth of each month, submit a report to the Secretary of Health through the Bureau of Milk Control giving the results of all the bacteriological analyses made during the preceding month of the milk before and after pasteurization.

Every effort shall be made to obtain a milk supply for pasteurization which will give a standard plate count of not more than 200,000 per cubic centimeter or a direct microscopic count of not more than 800,000 per cubic centimeter. When the bacterial content exceeds 200,000 colonies per cubic centimeter or 800,000 individual bacteria per cubic centimeter for three weeks in succession, the Secretary of Health shall be notified in writing concerning the action that has been taken to obtain a milk supply within the bacterial limit specified.

7. "Pasteurized A Milk" shall give a standard plate count of not more than 30,000 per cubic centimeter previous to delivery. In the event that the count is found to be higher than 30,000 per

cubic centimeter those responsible for the milk supply shall take whatever action is necessary to obtain a milk within the bacterial limit specified.

8. The requirements for the sale of "Pasteurized A Milk" set forth shall be considered as minimum requirements and nothing herein shall be deemed to prevent a municipality from ordaining and enforcing additional requirements for the sale of "Pasteurized A Milk."

# Vital Statistics Comment

## OCCUPATION STATISTICS

**Florence Hardy**

*Assistant Statistician*

THE following summary and tabulation of occupation statistics in Pennsylvania was released recently by the Bureau of the Census. The information is based on the returns of the Fifteenth Census taken as of April 1, 1930. While the total numbers have but slight significance at the present time, the age and sex distributions, the nativity and color of the workers gainfully employed in the Commonwealth have a distinct bearing on the social history of the State as a whole.

There were 3,722,103 gainful workers 10 years old and over in Pennsylvania in 1930, constituting 38.6 per cent of the total population of the State (9,631,350), and 48.1 per cent of the population 10 years old and over. In 1920, the number of gainful workers was 3,426,359, forming 39.3 per cent of the total population, and 50.6 per cent of the population 10 years old and over.

Of the gainful workers of Pennsylvania in 1930, 2,918,211, or 78.4 per cent, were males, and 803,892, or 21.6 per cent, were females. The male gainful workers formed 75.1 per cent of all males 10 years old and over in 1930, as compared with 79.5 per cent in 1920, while the female gainful workers formed 20.9 per cent of all females 10 years old and over in 1930, as compared with 20.7 per cent in 1920.

Distributed by color and nativity, 2,832,062, or 76.1 per cent, of the total gainful workers of Pennsylvania were native white; 670,824, or 18.0 per cent, were foreign-born white; 214,319, or 5.8 per cent, were Negro; and 4,898 were of other races.

Distributed by years of age, 1,565 of the total gainful workers were 10 to 13; 22,253, or 0.6 per cent, were 14 or 15; 132,533, or 3.6 per cent, were 16 or 17; 215,996, or 5.8 per cent, were 18 or 19; 547,279, or 14.7 per cent, were 20 to 24; 881,225, or 23.7 per cent, were 25 to 34; 806,965, or 21.7 per cent, were 35 to 44; 599,877, or 16.1 per cent, were 45 to 54; 354,328, or 9.5 per cent, were 55 to 64; 136,596, or 3.7 per cent, were 65 to 74; and 21,080, or 0.6 per cent, were 75 or over. In 1920, there were 4,846 workers 10 to 13 years old; 50,825 workers 14 or 15; and 129,867 workers 65 and over.

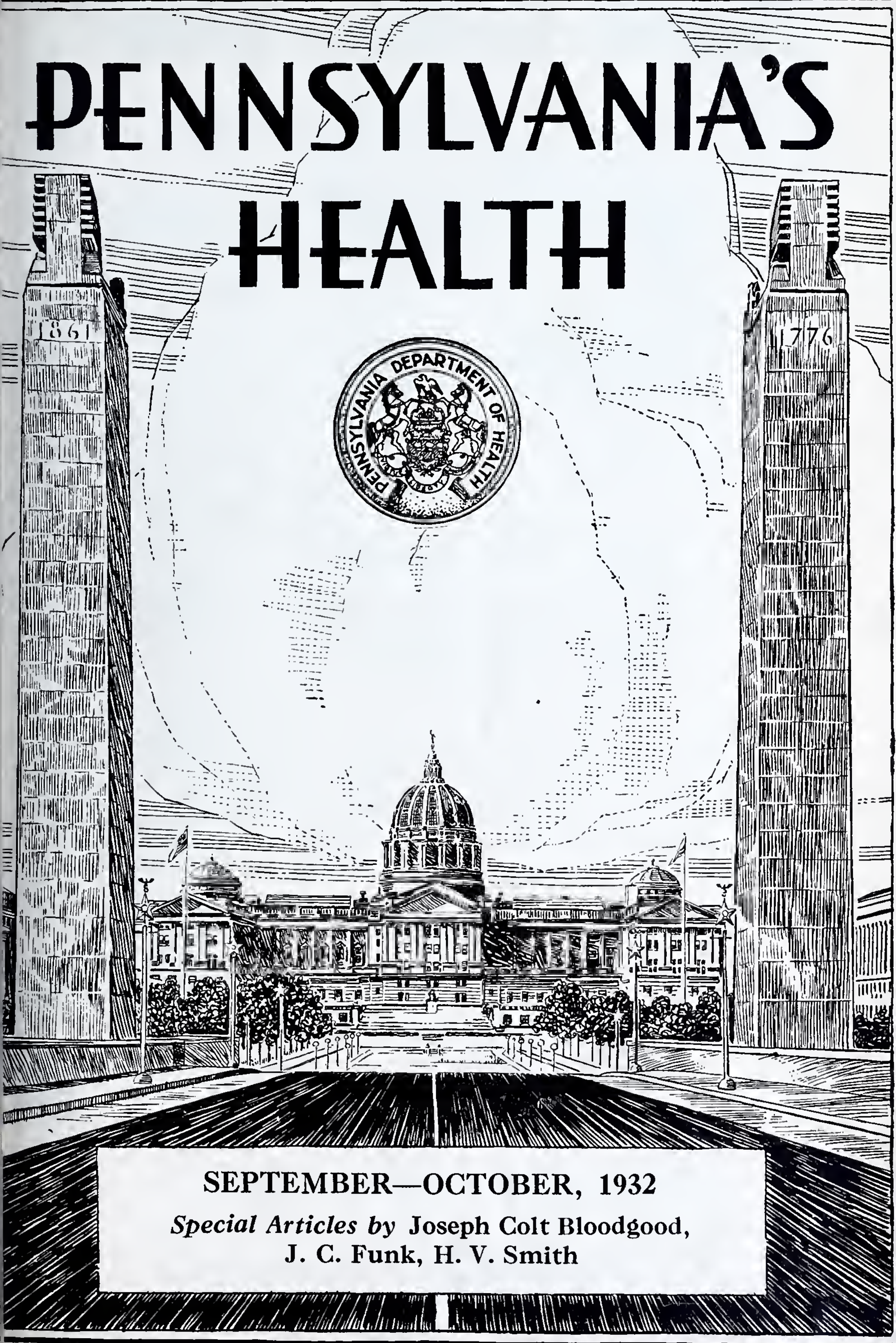
Of the 800,582 female gainful workers 15 years old and over, 534,687, or 66.8 per cent, were single (including those with marital condition not reported); 166,331, or 20.8 per cent, were married; and 99,564, or 12.4 per cent, were widowed or divorced. The proportion of married women gainfully occupied was 8.3 per cent in 1930, as compared with 6.0 per cent in 1920.

The numbers in certain of the more important occupations and occupation groups are shown on the following table:

## OCCUPATION STATISTICS FOR PENNSYLVANIA

| Occupation | Male | Female |
|---|---|---|
| All occupations | 2,918,211 | 803,892 |
| Farmers (owners and tenants) | 141,025 | 4,877 |
| Farm laborers (wage workers) | 83,346 | 1,168 |
| Coal mine operatives | 267,654 | 70 |
| Bakers | 12,402 | 843 |
| Blacksmiths | 11,748 | ....... |
| Brick and stone masons and tile layers | 16,492 | ....... |
| Builders and building contractors | 11,779 | 14 |
| Carpenters | 67,525 | ....... |
| Compositors, linotypers, and typesetters | 14,089 | 647 |
| Cranemen, derrickmen, hoistmen, etc. | 10,572 | ....... |
| Electricians | 26,687 | 4 |
| Engineers (stationary) | 24,671 | ....... |
| Foremen and overseers (manufacturing) | 31,093 | 3,519 |
| Machinists | 69,912 | ....... |
| Managers and officials (manufacturing) | 22,194 | 586 |
| Manufacturers | 16,074 | 353 |
| Mechanics, automobile factories, garages, and repair shops | 24,296 | 2 |
| Molders, founders, and casters (metal) | 12,420 | 5 |
| Painters, glaziers, and varnishers (building) | 28,295 | 4 |
| Plumbers and gas and steam fitters | 22,692 | 1 |
| Tailors and tailoresses | 15,059 | 1,796 |
| Factory operatives | 259,650 | 181,564 |
| Blast furnaces and steel rolling mills | 27,981 | 958 |
| Cigar and tobacco factories | 5,207 | 15,902 |
| Clothing industries | 12,799 | 40,136 |
| Knitting mills | 17,724 | 26,513 |
| Silk mills | 19,607 | 35,298 |
| Factory laborers | 279,390 | 9,336 |
| Blast furnaces and steel rolling mills | 98,650 | 528 |
| Clay, glass, and stone industries | 27,274 | 682 |
| General and not specified laborers | 53,143 | 473 |
| Laborers and helpers, building construction | 46,005 | 16 |
| Chauffeurs and truck and tractor drivers | 75,121 | 90 |
| Laborers, road and street | 25,721 | 2 |
| Conductors, steam railroad | 7,369 | ....... |
| Laborers, steam railroad | 41,925 | 318 |
| Locomotive engineers | 10,781 | ....... |
| Telephone operators | 964 | 17,360 |
| Bankers, brokers, and money lenders | 12,035 | 355 |
| Clerks in stores | 19,321 | 17,695 |
| Commercial travelers | 18,902 | 286 |
| Insurance agents, managers, and officials | 21,524 | 736 |
| Real estate agents and officials | 10,253 | 503 |
| Retail dealers | 124,153 | 9,871 |
| Salesmen and saleswomen | 109,171 | 48,328 |
| Officials and inspectors (city and county) | 6,065 | 316 |
| Policemen | 12,289 | 42 |
| Clergymen | 10,992 | 150 |
| Dentists | 5,790 | 113 |
| Draftsmen | 10,788 | 112 |
| Lawyers, judges, and justices | 7,970 | 123 |
| Musicians and teachers of music | 6,308 | 4,873 |
| Physicians and surgeons | 11,633 | 616 |
| Teachers (school) | 14,708 | 60,566 |
| Technical engineers | 19,221 | 8 |
| Civil engineers and surveyors | 7,606 | ....... |
| Electrical engineers | 5,520 | 8 |
| Mechanical engineers | 5,002 | ....... |
| Trained nurses | 482 | 24,879 |
| Barbers, hairdressers, and manicurists | 19,063 | 7,500 |
| Janitors and sextons | 21,157 | 3,410 |
| Restaurant, cafe, and lunch room keepers | 7,782 | 1,824 |
| Servants | 20,374 | 127,437 |
| Waiters | 9,976 | 18,254 |
| Accountants and auditors | 11,173 | 960 |
| Agents, collectors, and credit men | 11,502 | 719 |
| Bookkeepers and cashiers | 18,267 | 34,499 |
| Clerks (except in stores) | 123,474 | 56,984 |
| Stenographers and typists | 3,709 | 60,379 |
| All other occupations | 520,035 | 99,306 |

# PENNSYLVANIA'S HEALTH



## SEPTEMBER—OCTOBER, 1932

*Special Articles by* **Joseph Colt Bloodgood,**
**J. C. Funk, H. V. Smith**

# PENNSYLVANIA DEPARTMENT OF HEALTH

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2. Cresson Sanatorium—Medical Director, T. H. A. Stites, M. D.
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# Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

THEODORE B. APPEL, M. D., Secretary of Health
J. CLARENCE FUNK, Sc. D., Editor

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# Editorial

## DO *YOU* HAVE HEALTH?

THE average reader would quite positively, if not boastfully, answer this interrogation with an affirmative. Moreover, he would feel slightly piqued that one should have the impertinence to flaunt such a question. He would even regard such an inquiry as downright silly. But how silly is it, after all?

For instance, consider the case of a certain gentleman who has just passed his fiftieth birthday. He has made a lot of money. He has had little time, or at least felt he had little time, seriously to consider his own physical well-being. Outside of a few colds, a touch of influenza and a broken leg, his personal interest in doctors has been very remote, indeed. But admitting all that, does he really have health?

In a negative sense, of course, he has health. He is not sick. However, the point that our friend has entirely missed is that health is very much a matter of degree. Obviously to be on the border-line of illness is not to enjoy that superlative tone that can make a man, no longer young, jump out of bed in the morning and in very joy exclaim, "How wonderful I feel today!"

And the man under discussion, we are quite certain, hasn't felt like that for a long, long time. He indirectly admits it. He gets up tired. He peps up on stimulants. He inhales excessively. He is extremely affectionate toward food. He is likely to under-sleep. In short, he is mildly guilty of the misdemeanors that are so likely to be committed in the name of that much over-worked excuse, Modern Civilization.

And perhaps he is not much to be blamed. Super-health being a companion of youth, one naturally imagines that it will continue to function automatically as the years advance. But this it most emphatically does not do. The rapture of living abundantly loses its self-starting power as the physiological processes of middle age slow down to a more even and less lyrical tempo. The possibilities are still there. But they demand recognition, attention, even affection if they are to be fully realized.

Therefore, it perhaps is not such a foolish question after all to inquire of the middle-aged person concerning his health. Moreover, if the inquiry results in an honest self-appraisal, in the elimination of devitalizing habits and the substitution of a *reasonable* health-consciousness, it will not have been in vain, impertinent though it be.

Incidentally, many a younger person of today, moving on the high speed and nerve-wracking level that spells "Life" for him, might perhaps find great difficulty in reacting 100 per cent honestly to the personal health question.

Are not these sufficient excuses for such an interrogation? Well, then, how do you stack up on it? Really, now, on the basis of physical zest and vim, Do *you* have health?

# THE CHIEF CONTROLLABLE FACTOR IN CANCER TODAY

**Joseph Colt Bloodgood, M. D.**
*Johns Hopkins University*

I DOUBT if anyone in the United States dies of cancer without the benefit of surgery, X-rays or radium, but the majority of those are not cured and many are not even temporarily relieved because of the lateness of the stage of the disease when the patients sought advice.

I have personally studied thousands of histories of patients who sought the advice of the medical profession after they had been warned for some time. The striking facts in these histories are: These patients whose malignant disease can be diagnosed clinically have no family physician even if they could afford one; they have not had a recent diagnostic survey, and the chief cause of delay after they become aware of their symptoms has been ignorance rather than fear.

From the very beginning of my contact with people suffering from cancer, forty years ago, I have been impressed that those who came early in those days had family physicians in whom they had confidence, and whom they consulted the moment they had any symptoms. The outstanding fact of the people operated on for cancer and whose histories are reported in the Surgical Pathological Laboratories of the Johns Hopkins University and Hospital, and who are alive and free from recurrence today, ten to thirty years after operation, was that they all had a well trained family physician whom they consulted at intervals while they were well and always at once when they were not. Moreover, from the very beginning of my studies of cancer of the oral cavity, the outstanding feature of the history was that the patient had not seen a dentist for years, if at all. I am rather inclined to the opinion that the dental profession today could almost guarantee protection against cancer of the oral cavity if their patients would submit to a dental examination as frequently as the dentists think necessary. In this way all irritation from teeth and plates would be eliminated. If the patient used tobacco, the moment an irritated spot appeared the dentist would recognize it in time and have the use of tobacco stopped.

## Cancer of the Cervix

In Professor Regaud's clinic in Paris, one is tremendously impressed with the systematic methods, the examination of the patient, the records and diagrams, the application of radium in various forms of cancer of the cervix, oral cavity and skin, and the follow-up. From the moment a woman with cancer of the cervix enters Regaud's clinic, nothing is left undone. It takes only a glance at Regaud's statistics, based on large numbers of the cases over a period of fifteen or more years, to know why his five-year cures have risen so slowly to now thirty-five per cent. Group 1, the most favorable stage for a permanent cure by radium, is still the smallest group. What we need today in every civilized country is not so much more radium, nor more cancer clinics, but more discovered cases of cancer of the cervix in its early stages. The majority of obstetricians and gynecologists today believe that the greatest protection against cancer of the cervix is routine pelvic examinations after the birth of a child. I have found that in this country less than ten per cent of our mothers are so protected. We must investigate how this can be improved.

In London, there is established a most remarkable cancer clinic for women which has been active more than three years; its capacity is about thirty-five beds. The clinic occupies a reconstructed private dwelling. It is attractive and efficient. The director is essentially a trained gynecological pathologist and operative gynecologist. She took up the study of radium in cancer of the cervix in the great clinics of America and Europe. As director she takes part in, and is responsible for, the examination of the patients in the clinic and the supervision of the actual treatment of the cases in the operating room. On the staff of this hospital are eighteen trained women, all of them gynecologists and many of them general surgeons. Each one of these women surgeons is on the staff of some other London hospital. Therefore, this Marie Curie Cancer Clinic for Women is not only treating a very large number of cases of cancer of the cervix along the most approved modern methods, but it is teaching a larger staff of gynecologists the methods of treating cancer of the cervix with radium. But the same fault is present in the Marie Curie Clinic as in Regaud's late cases—the patients often get there too late.

On the other side of the picture, there is no question but that there has been a tremendous improvement, especially in this country and Canada, in disseminating correct information in regard to cancer to the medical profession and to the public.

## Control Through Surgery

We know that fully developed cancer, even with involved neighboring glands, has remained well twenty or more years after a proper complete operation. This is true of cancer of the skin, lip and oral cavity, larynx, breast, stomach, colon and rectum, malignant tumors of bones and soft parts. This group includes the most accessible to surgery. Today, there are twenty-year cases of cancer after the employment of X-rays and radium. Hence the control of cancer is no longer an experiment. All the various activities of which the world has been kept pretty well informed have passed the experimental stage. Of course, there is much still to be done in clinical research, especially in relation to deep X-ray therapy and the amount and method of radium treatment for early cases of cancer of the cervix, skin and oral cavity. There is still hope that, by increasing the amount of radium in the form of a bomb to fifteen grammes and increasing the strength of the deep X-ray machine, we may accomplish a certain per cent of successes in what are not uniform failures, that is, late cases of cancer, metastatic carcinoma and localized early inaccessible cancer, such as in the oesaphagus, lung and liver, and the early stages of cancer of the prostate of which there is a very large number of cases. There is remaining the most important effort to be carried forward in pure research into the cause of cancer and the specific and preventive treatment of the disease.

## Periodic Examinations the Great Bulwark

So much has been written and published in medical and lay journals about cancer that both the general profession and the public are confused and do not clearly see what we actually know about the preventive and curative stage of cancer today; although there is no doubt that cancer of the skin, oral cavity and cervix of the uterus are preventive diseases; their prevention rests upon the selection of a family physician or clinic and periodic physical examinations throughout life. More and more people today are educated to see their dentist when the dentist suggests. The number is increasing of those who do not wait for symptoms to go and see their oculist. More persons are beginning to learn that deafness is due to neglect in not giving the specialist in nose and throat diseases an opportunity to correct and discover very simple infections and abnormalities in the nose and throat. To repeat, the most neglected periodic examination is that of the cervix of mothers. The majority of obstetricians have expressed their opinion in writing to me, that the prenatal clinic is the place to instruct mothers in prevention of diseases in themselves and in their children, but there are millions of mothers today who have passed the child-bearing period; therefore, they depend upon a family physician or a neighboring clinic of a hospital to give them the same protection.

## Let Your Doctor Decide

Even if every individual submits to an annual diagnostic survey, complete protection is not achieved until they are informed and influenced to seek the advice of the nearest physician or clinic if they are near one or the other who made the last physical examination, the moment they have any warning symptoms. There is a constant shifting population and if the people are well at the time, the last thing they think of is the selection of a physician or clinic situated near their new home. There is no necessity to go into detail of the actual figures we have to prove every statement in this paper. The best assurance of prevention or the cure of cancer today rests upon confidence in the medical profession, either in the person of the family physician or a clinic or a hospital.

I am now living in the fifth decade of a continuous cancer survey of the actual factors over which we have control, which means protection or no protection, if cancer develops in an individual and the greatest protection of all is confidence in the medical and dental profession. None can take the place of the doctor, either as an individual or as a member of a group in office, clinic or hospital to make the periodic examinations or the diagnostic survey if, in addition, one reports the moment after there has been a warning.

Just as every phase of cancer control and fundamental research in clinical investigation and research shows room for improvement, so there is an opportunity for a distinct piece of research in this, today, the most controllable factor in the prevention and cure of cancer, the relation of every individual in the world to a properly trained physician and dentist.

## Cancer of the Breast

During the past few years I have discovered this: If the breasts of one thousand women are examined, and not a single one is aware of anything wrong with either breast, in at least one per cent a definite lump will be found on palpation and transillumination which, when removed for microscopic study, will show cancer, and this woman will have at least seventy per cent chance of a cure. In at least three per cent of the cases definite lumps will be found which, when removed, are not cancer. In at least twenty-five to thirty per cent of the cases certain lumpy conditions and other abnormalities will be revealed which have no relation to malignant disease and for which no treatment is necessary. The remaining sixty-five per cent of the cases will be practically normal breasts.

## When the Symptoms are Present

If a similar thousand women report the moment they think they feel a lump, experience pain, or observe a discharge from, or irritation of, the nipple, in ninety per cent some abnormalities will be found on palpation, inspection and transillumination. In about ten per cent of the cases the breasts will be normal, but painful and tender. However, instead of one per cent of cancers there will be ten, but not all of these will have seventy per cent chance of a cure. There will be at least fifteen per cent with definite lumps which, when removed, will be found not to be malignant. There will be a small per cent of cases of irritation of the nipple which will disappear after simple treatment, and about one per cent where the nipple will have to be excised for microscopic study, to exclude the possibility of early Paget's cancer of the nipple.

## Danger in Delay

Each month a woman waits after she notices anything wrong in the breast, the incidence of cancer increases. Up to 1900, in Halsted's clinic at Johns Hopkins, in the first one hundred cases, the incidence of cancer was more than eighty per cent; benign tumors were less than twenty per cent. Among the eighty per cent more than one-half were inoperable. Among the operable cases the chances of a five-year cure were less than twenty per cent, of ten-year cures less than ten per cent. No woman came for examination of the breast without a definite tumor for which operation was performed until 1900. In my clinic today, the incidence of cancer is less than ten per cent; the group of benign lesions, for which operation is not indicated, has now reached almost eighty per cent.

Now the majority of these one thousand women whose breasts examined in the course of a physical examination or because they had had recent warning symptoms are mothers, and there should be a pelvic examination, especially an inspection of the cervix by a good light. The skin should be surveyed for definite lesions. The mouth, nasopharynx and nose should be looked at, and there should be a rapid diagnostic survey with a few laboratory studies.

## How the General Practitioner and Health Departments Can Aid

Should the general practitioner educate himself and prepare a proper examination room in his office for these diagnostic surveys, and the health departments, in cooperation with the local county, city or state medical societies, educate and influence the public to seek these examinations, the average physician would have more to do than when there was no health department and no preventive medicine. It is to be borne in mind that these periodic physical examinations and diagnostic surveys are not for cancer only, but for the threat and the possibility of cancer.

Being certain of the value of surgery, X-rays and radium, as offering so much for the cure of cancer in its earliest stages, I feel it is just as much my part to discuss the value of the periodic examination for the prevention and cure of cancer as to discuss, as I have for years, the pathological diagnosis and operative treatment and, more recently, the treatment with X-rays and radium.

# The Health Gnome Says—

Man is a curious fellow;
He forever wants to know
About the things in this old world,
That run life's wondrous show.

And, so far as gaining knowledge goes,
His record is quite fine;
Indeed, his investigating thought and work
Are actually sublime.

But, regarding his own brand of health,
He shows little of concern;
"I'm running on all fours," he thinks,
"There's nothing more to learn."

That is where he sadly slips,
For things may not be what they seem;
Vim, vigor and vitality
Can be an idle dream.

Now the point of this observation
Is most easy to perceive;
Cancer, T. B., and bad hearts
Thus get footholds, by one's leave.

So, let's be curious too about our health,
And get an examination;
It's better business and more wise
Than to trust imagination.

*J. C. F.*

# THE SOCIAL HYGIENE PROGRAM AND THE CITIZEN*

**J. Clarence Funk, Sc. D.**
*Director, Bureau Public Health Education*

THE average successful American citizen considers himself a bit above the game of local politics. His attitude can be likened somewhat to that of the landed English gentry who, not so many years ago, were prone to consider those "in trade" to be of a slightly lower order than themselves. Indeed, most business and professional men (lawyers excepted), until recently have been so busy making money as to preclude in their own estimation the possibility of active participation in local public service, even though they had possessed the inclination.

However, in the recent past, numerous instances have occurred where the aloof man of affairs because of a painful and very personal attack was compelled to assert himself. Outstanding examples of this sort of thing are the Taxpayers' League and the Secret Committee, both of which functioned with such notable success in Chicago—the former winning the fight against unjust and unfair taxation, the later materially assisting in the conviction of that arch leader of gangdom, Al Capone. It will be observed that in both instances the dollar was the primary incentive to action, represented by unfair levies on real estate in the first case and criminal money demands on the trades in the second. It is axiomatically true that when you strike at a man's pocketbook you hit him at his most vulnerable spot. And if he can, he will hit back.

Unfortunately, the consequences of uncontrolled or misdirected politics are not limited to dollar harm. Among other things, bad housing, negligible recreational centers, poor milk and water supplies and inadequate health facilities have in the past been properly laid at the door of unscrupulous public management. Today, thanks to efficient health departments, the application of modern scientific aids to water and milk problems, and the work of well trained and conscientious social service agents, many of the glaring defects of governmental humanitarianism of former years have been decidedly dimmed. For which be all praise!

But there is still a blot on the escutcheon. It is a blot that faded somewhat during the hectic war years when the full force and effect of the federal government were enlisted to erase it. But today it unfortunately has been revived in colors almost as arresting as formerly. That blot is commercialized vice.

I think that a conscientious survey, at least in Pennsylvania, will elicit the disturbing fact that many of the larger cities now have segregated vice districts, not a few of which are located, as in pre-war days, within a stone's throw of police offices. These pestiferous spots, lacking perhaps some of the garishness of former times, are sufficiently well defined and as typically advertised as in the days of yore. In view of the enlightened information on the damage done to bodies, not to mention souls, by localities of this type, such conditions point to an inexcusable, indeed a criminal negligence, on the part of someone. I shall now attempt to place the blame where, in my opinion, it properly belongs.

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*Address delivered at the Regional Social Hygiene Conference in Erie, Pa.

Law enforcement is an exceedingly comprehensive term. In times past it has been generally and almost flippantly used. The natural reaction to this expression results in envisaging laws to suppress commercialized vice, policemen charged with the duty of discovering violations of this type; magistrates, judges and juries whose obligation is to sit in judgment on such cases; prisons for the punishment of the guilty, and quarantine hospitals for the effective medical restraint of venereally infected persons who, for one reason or another, have proved themselves to be menaces to public health.

All these factors, with the exception of the last (and Pennsylvania is fairly well off in that phase also), over-abundantly exist in most localities not only in this Commonwealth, but throughout the nation as well. It, therefore, becomes apparent at once that something else is decidedly required; and this, for the lack of a better term, may be called the *will-to-enforce.* This essential factor is lamentably lacking in most jurisdictions.

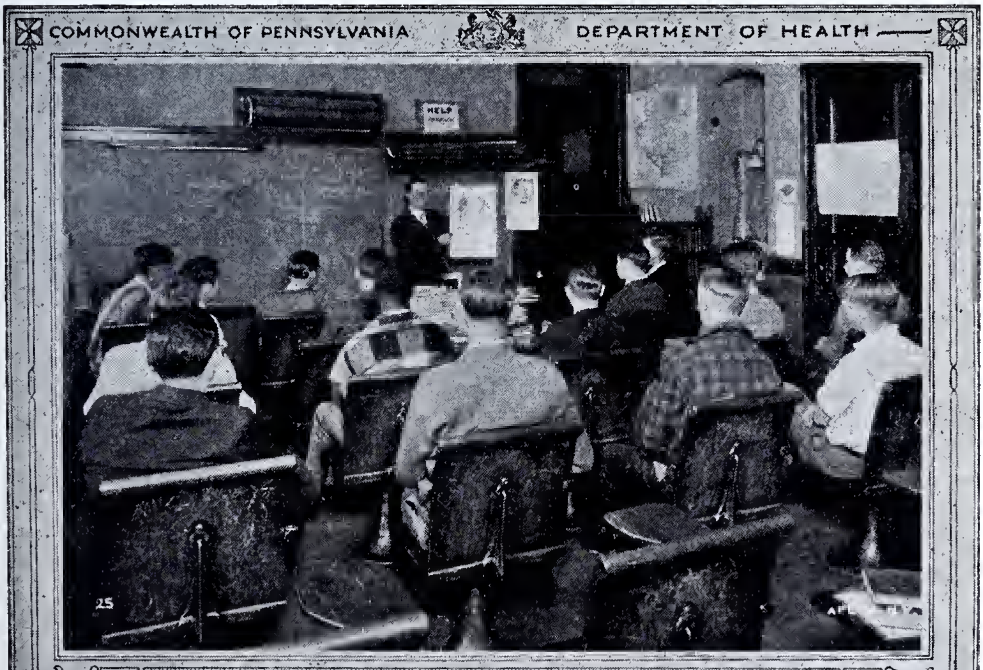
**The Doctor Does His Part in Treatment—The Citizen Must Do His in Prevention**

To a highly oriented audience such as this one, it would be carrying coals to Newcastle to linger even for a moment upon the personal deficiencies of the American police system and its Siamese-twin connection with politics. All that we need to emphasize is that these conditions exist, have existed for years, and will continue to exist unless enlightened citizenship, aggressively and with well directed power, demands that a change be effected.

And one may become logically optimistic about this suggestion. It can with certainty be stated that vice and crime in its major manifestations can be definitely eliminated if a sufficient number of intelligent citizens will condescend to exhibit even a small fraction of the interest in the business of local government that they are wont to apply to their own personal affairs.

No better example of the truth of this statement can be offered than the city of Erie, at least so far as the commercialized vice problem is concerned. Prior to the war, this city enjoyed the dubious distinction of possessing one of the largest and boldest segregated vice districts in Pennsylvania. But since that time, because of the *maintained* interest in municipal cleanliness displayed by a group of unselfish distinguished citizens, public servants have been chosen and elected on the full realization that decency and law enforcement must prevail if political favor were to be continued. The results have been spectacular.

Here was no fly-by-night reform involving a dramatic exodus of prostitutes and the temporary closing of their *loci operandi*, hailed by four-inch newspaper scare-heads. On the other hand, a carefully studied plan was developed, involving a proper functioning of police department and health officials, and the establishment of a social service agency admirably equipped (and privately subsidized) to render social aid to unfortunate cases. As a consequence of this well defined and sustained effort, Erie today can boast of having reduced the commercial phases of vice and its deplorable disease incidence to an irreducible minimum, and having *kept it there.*



State representative lecturing on social hygiene.

A study of the Erie plan, in my opinion, undeniably proves several things. First, laws both penal and medical are quite adequate, in Pennsylvania at any rate, to cope with commercialized vice and its associated disease complications. Second, that law enforcement is the sole duty of public servants, who if pressed properly will function adequately in spite of the alluring temptations offered by corrupt politics.

The conclusions are obvious. Much commotion is yet being made in various sections of the nation about the so-called law enforcement problem when in fact, considering the matter basically, there isn't any such problem. The fundamental question is not one of law enforcement, but of developing sufficient interest in the subject among leading and influential citizens to compel, by the force of the power that such a group possesses, the carrying out of the details of honest law enforcement by public officials.

To my mind at least, much of the effort that is now being unsuccessfully expended in bringing pressure to bear on mayors and police heads could more properly, and decidedly more effectively, be directed toward the development of an unselfish civic consciousness and service such as so fortunately exists in the city of Erie today with respect to the red light and venereal disease problem.

I frankly admit that this proposition is much easier stated than applied. In fact, it is likely to prove to be an exceedingly difficult matter to enlist the sincere sympathy of the right types of citizens in this work. It is really in this that the greatest problem exists. The key men and women must be outstanding, and sufficiently powerful in leadership and influence to surround themselves with a representative committee whose political favor is essential to election to public office. That such a utopian idea is practical is proved by the Erie situation—which has maintained its enviable position for more than a decade.

Which is merely another way of stating that the real fault in a breakdown of law enforcement may be traced to the let-George do-it principle which has so persistently been applied by both the average and above-average citizen in matters locally governmental. This spirit of complacent indifference to the public business must somehow be changed into one of active interest in the more vital problems affecting the public welfare. There, in the light of my experience, lies the real job.

Therefore, in my judgment, conditions seem to warrant less criticism of public officials, who without any interference naturally follow the lines of least resistance and most reward, and more criticism of the high-hat citizen, who with expanded chest and up-turned chin refuses to smudge his hands in local politics. And this statement holds good not only for law enforcement as connected with the venereal disease problem, but for its other phases well known to the criminal courts.

In conclusion, may I say emphatically that I have no desire or intention to imply that public officials, simply because they are public officials, fail properly to carry out their oaths of office. There are many good and conscientious people in public service. But I do mean to emphasize the claim that law enforcement is likely to lack necessary vigor in direct proportion to the indifference of the public.

The solution of the vexing problem seems, therefore, to be quite definitely in the hands of the citizen. Can we make him realize this fact? And realizing it, can we make him act conscientiously and continuously to enforce, through the power of his suffrage and personal influence, his will upon those in whom he has placed his trust? Real law enforcement demands no less.

# THE DRUG ADDICT'S PLIGHT

## Harold V. Smith

*Director, Bureau Narcotic Drug Control*

IN the popular mind there is a great deal of mystery concerning narcotic drugs—opium, morphine, heroin, cocaine, marihuana, et cetera. This is due to a lack of real knowledge, and also to the effects of certain works of literature which have thrown a kind of glamour or romance over the subject. The imagination plays a large part in this, and strange and bizarre conceptions of the Orient contribute in making it seem more mysterious.

The lure of the poppy, the white opium poppy, the sleep-producing poppy of happy dreams, has fascinated and entrapped man for centuries. As early as 1729, the Chinese Government issued an edict prohibiting opium smoking. Bloody wars have been waged over the opium poppy in the past, but today the greatest war of all is being waged without bloodshed to bring back to life those living dead, those untold numbers of drug-manacled human slaves.

Pennsylvania has its share. In its effective and humanitarian work the Bureau of Narcotic Drug Control has helpfully classified and recorded over 16,000 addicts. In addition to the illegal traffic in narcotic drugs, the annual per capita amount of morphine alone legally supplied to the people of this Commonwealth has markedly increased in recent years.

A real idea of the increase in narcotic consumption may be reached from the fact that in 1921 the net quantity of opium alone legally imported into the United States was 47,024 pounds. By 1931, the figure had increased by almost 100,000 pounds, or to the amazing amount of 134,092 pounds. In addition to this, the United States Treasury Department estimates that most of the drugs used in this country are smuggled in!

However, opium is far from the worst feature of the present narcotic situation. Man was not satisfied with nature's narcotic. In 1803, a French chemist discovered how to produce morphine from opium, and a half century later came the discovery of how to produce cocaine from coca leaves. These two alkaloids are vastly more powerful than opium; and addiction to them spread appallingly. This was bad enough, but still man was not satisfied. In 1898, a German chemist discovered how to produce heroin from morphine, and heroin is three or four times as powerful as morphine! This may be the ultimate. But who knows?

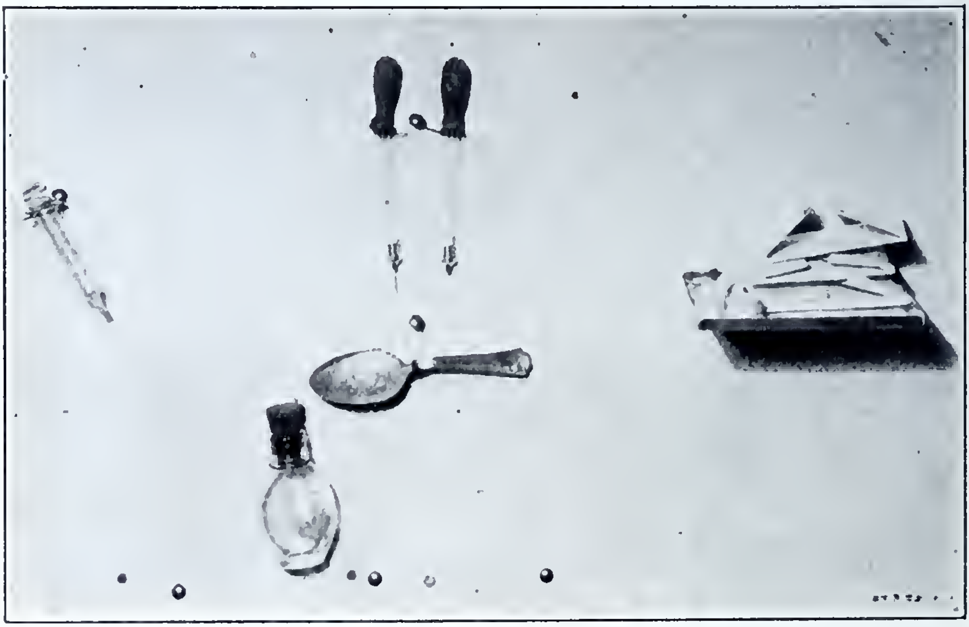
Narcotic addiction must be regarded as the approach of living death. Left to run its course, the approach will be slow or swift, according to the drug. Slow with opium, faster with morphine, galloping with heroin!

Opium, morphine, heroin, and cocaine are all deadly alkaloidal poisons. Since the nervous system is the most highly organized part of the whole human organism, it naturally is the center of attack. The narcotic poison penetrates the upper brain and inflicts the deepest and swiftest injury upon the parts that are the tenderest, the most complex and unstable, which are developed latest in human evolutionary progress, and distinguish man from the brute.

This part of the brain may be considered as the Temple of the Spirit, the seat of altruistic motives, of character, of those high, God-like traits upon which an advanced and enduring civilization is built.

Civilization depends upon the state of society, and the family is the foundation of society. In the family, society not only prepares its citizenship in the most essential attributes of character, but renews its very life through the welding of two lines. Without considering the economics of the home, and the want and tragedy that come in with narcotics, it must be admitted that through the home narcotics strike directly at civilization by making a deadly attack upon these two welding lines.

It is often morphine and narcotics thoughtlessly, carelessly, or unscrupulously given for pain or illness, or taken in patent medicines, barbital, barbituric acid compounds, sleeping powders, pills, and what not, that bring addiction with its train of sorrows to parents in established homes.



**A Morphine Addict's Outfit**

Cocaine and heroin, and most particularly heroin, generally catch or "hook" the younger person, the boy and girl between 16 and 20, like the young bird before it has learned to fly—and thus many new homes are never built. Such victims constitute the bulk of new recruits. A single ounce of heroin is capable of creating innumerable young addicts!

Perhaps it may be for a thrill? The result of a dare? Innocent appearing but insidious headache or conditioning powders and patent preparations? A free sample from a peddler or his frequently youthful agent? Bona fide medical treatment? Whatever and however the beginning, once the hapless victim is "hooked," a swift transformation in character takes place. Self-respect, honor, obedience, ambition, truthfulness melt away. Virtue and morality disintegrate.

Imagination cannot conjure up a more pitiful and abject slave than the drug addict. The question of securing the drug supply becomes absolutely dominant. When the drug begins to subside, as it does in a few hours, the equilibrium is upset as though by an irritating poison.

A condition of excruciating torture sets in. No part of the body escapes. Pains often succeed each other as though a sword were being thrust through the body.

The addict considers getting his supply of the drug as a matter of life and death. He will lie, steal, rob, and if necessary, commit murder!

In addition to the pronounced anti-social traits of all addicts, the heroin and cocaine addict looks upon himself as a hero. Bent upon securing the drug, or getting money to buy it, he will dare anything, thinks he can do anything. Police records, and our correctional institutions, contain great numbers of this type of criminal addict, many of them in their early twenties.

Drug addiction is the same as a contagious disease. All addicts seem to have a desire for company, and wish to contaminate others so that they may have some one to share with them their overpowering problem of securing drugs. The heroin addict, who is the most dangerous type of opium user, has an absolute mania for new recruits. Such being the case, it is appalling to think what the situation would be were it not for the alert activities of enforcement agencies.

Cures are uncertain. The only guarantee of freedom and safety is never to start. From experience, the Pennsylvania Bureau of Narcotic Drug Control has found prevention to be the best and most effective weapon in the war against narcotics. Members of the medical fraternity, other practitioners, and pharmacists, have a tremendous responsibility here, and their earnest cooperation, together with the general public's, means much in winning the final victory.

As for the illicit peddler, he cannot be dealt with too stringently. There is no worse criminal. A murderer kills one man, possibly two, if somebody gets in his way. Perhaps on occasion five. But with cocaine, heroin, or morphine, the peddler kills by the hundred!

For humanity, for civilization, for the home, for tomorrow's citizens—there must be no surrender! The battle must be fought for those unfortunates too weak to fight for themselves.

## THE HEALTH CARS

### Mary Riggs Noble, M. D.

*Chief, Preschool Section, Bureau of Child Health*

THE two motor units began work as usual in rural sections of the State the first week in June, and continued in operation for three months. This year's itinerary included Westmoreland, Tioga, Potter and York counties.

Many Pennsylvania citizens are familiar with this summer activity, and know that it is to give health service to rural children under school age, with particular reference to getting them ready for school.

The first health car was sent out in 1925. Two years later a similar, but more complete, car was purchased and sent out on tour because the work had demonstrated its usefulness. Summer by summer, each time on a carefully prearranged schedule, these two cars have traversed hundreds of miles of territory, each with a full staff, examining young children to discover defects and to try to spur parents to secure prompt correction. Two doctors and two dental hygienists do the examining of the children and exhort mothers in an effort to pave a healthier path to the schoolhouse door.

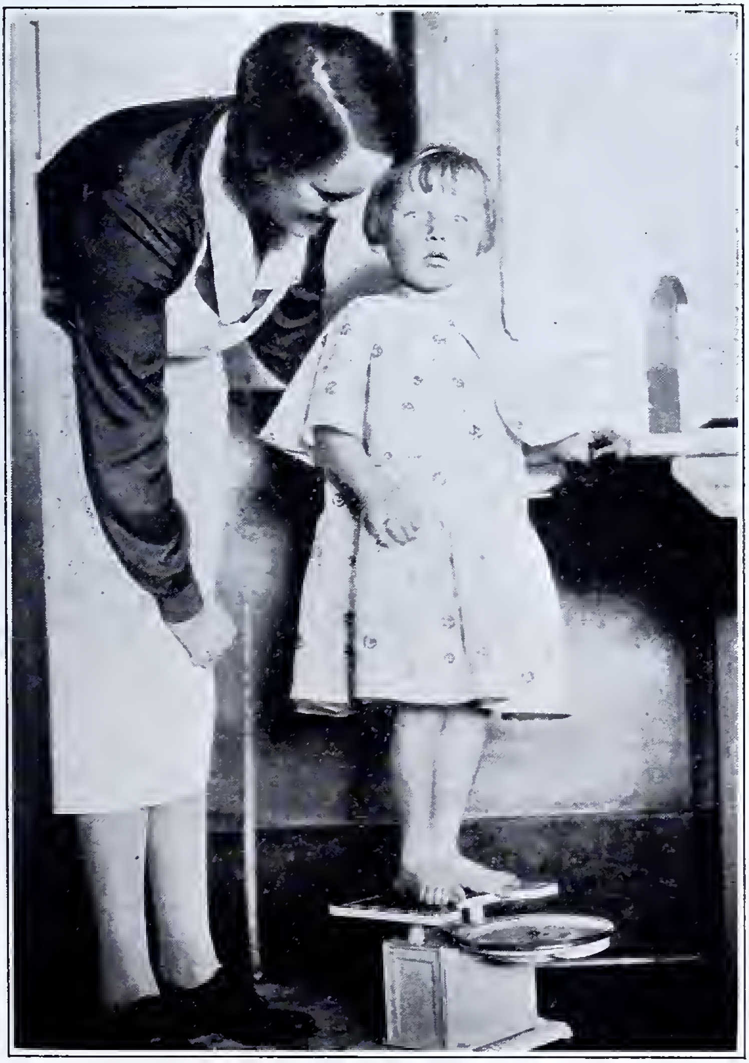
**Typical Mobile Health Unit**

It must be emphasized, however, that the aim is to discover where medical treatment is needed—not to give either advice or treatment. To leave behind an interested local committee able to share with the public health nurse in helping to get defects corrected is one of the main objectives. The whole undertaking would be too costly if the car merely moved into a town to create a day's excitement and left without a plan to get results.

The doctor's examination is routine, with stethoscope, otoscope, and skilled eye, skilled ear, trained finger tips and experienced judgment. The check-up is quick but we count on missing no major defects.

A feature of the work now receiving special attention is the eye testing. The eyes of the four, five and six-year-olds are examined according to the newer method approved by ophthalmologists for determining the visual acuity of young children, and is productive of timely knowledge as to danger signals in eye sight. Special training is given those who do this part of Health Car work by the Sight Conservation Service of the Council for the Blind, so that the findings are reliable.

The dental hygiene work is always spectacular and reveals an unbelievable amount of dental caries and other mouth conditions needing attention.



**Part of the Examination Routine**

Between June 6th and September 2nd, 9000 children passed through our hands, of which 7500 had their teeth cleaned and 38,000 cavities were discovered. There were 500 short-sighted children needing the attention of an ophthalmologist; 10 single blind eyes were discovered. The names of these last children were forwarded to the Council for the Blind who take the necessary steps to discover if any improvement is possible, if the sight of the seeing eye is in danger, and in short, to determine if the utmost is being done for the child thus handicapped.

This is the eighth season with the motor health units. Fifty-eight thousand children in forty-nine counties have attended the conferences. The sum of the defects found in these eight summers makes an impressive load of physical defects borne by very young children.

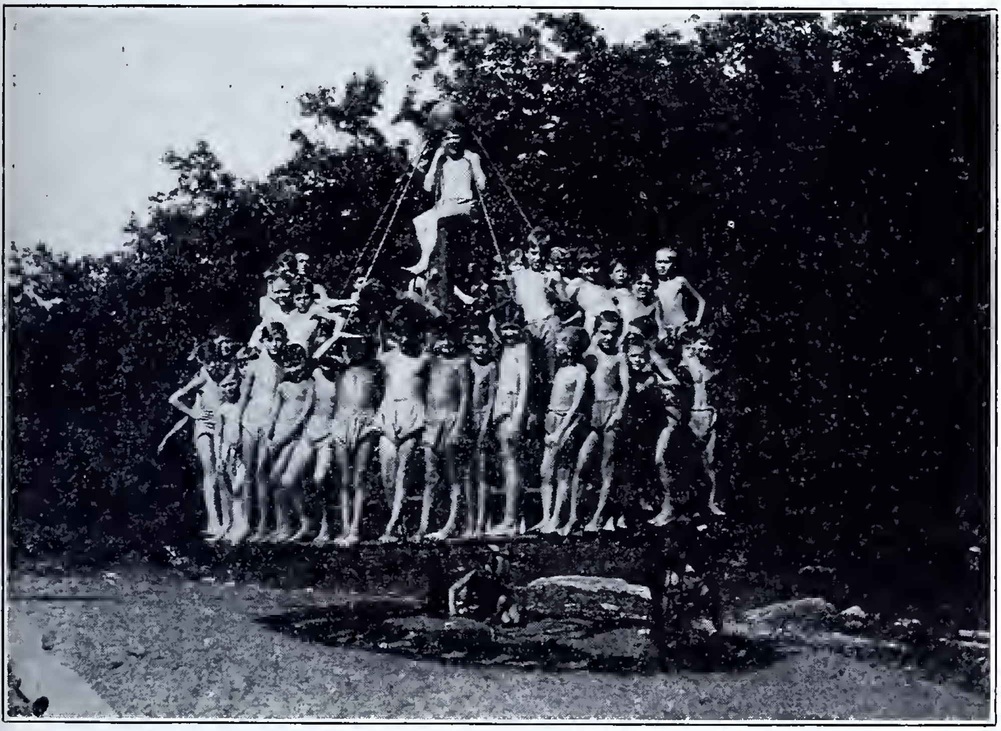
Consider 38,000 cavities in 7500 mouths; 2150 faulty tonsils often combined with adenoids; 450 cardiac imperfections; these with other thousands of debilitating and dangerous conditions.

What has the *discovery* of all this amounted to? Has it led to action? Hundreds and hundreds of tonsil and adenoid operations have been secured, and dentists have had processions of preschoolers making their way to them. These things we know to be facts. There are no figures showing the *percentage* of corrections secured but, on the basis of the known visits to the family doctors' offices where the children were taken, together with information gathered by the state nurses and other field workers, it is reasonable to estimate that we have secured about 50 per cent of corrections.

It is worthwhile to emphasize one of the special responsibilities the Department feels when faced with the mother and child. Merely to go over the little one from head to foot, list all defects and inform the mother of the findings may be far less important than talking face to face with her on the subject of the general care of the child and its health habits. The old topics of feeding, sleeping, bathing, clothing, fresh air and exercise, must thus be emphasized again and again so that better child care may be understood in order to clinch the benefits derived from defect discovery and correction.

## DEPARTMENT NEWS

THE CHILDREN AT THE SANATORIA—More than 500 children predisposed to tuberculosis were in camp during the summer months at Mont Alto and Cresson. Young people marked for disease were returned to their respective homes in fine physical condition, thanks to the good food, rest and scientific routine at these institutions. This is disease prevention in a very eloquent and human form.



**Fresh Air and Regulated Exercise is a Part of a Sanatorium's Program**

FINE HEALTH RECORD—The labor camps in Pennsylvania, with a total population of 850, eloquently demonstrated the value of outdoor life coupled with outdoor work. The incidence of disease in these camps has been surprisingly small, and the general physical condition of the men unusually fit.

Indeed, it is not too much to say that this group of workers at the present time rates as high if not higher in physical condition and freedom from disease than any other class of citizens in the entire Commonwealth. Hats off to fresh air, sunshine, and a reasonably disciplined life!

Incidentally, the Department deserves some credit for its careful supervision of the food, milk and water supplies, and the other features that tend toward a high state of sanitation.

A SANITARY SURVEY—The school division has been busy during the summer months in conducting the annual sanitary survey of schools in the third and fourth class districts.

These inspections have already been concluded in the majority of the counties, and involved a thorough investigation of the physical and sanitary requirements as set forth in the regulations.

Reports reaching the office of the supervisor of school sanitation indicate that many of the recommendations for improvement of conditions have been completed by the respective school districts.

VACATION TYPHOID—In spite of the repeated warnings by the Department and continuous seasonal educational propaganda over a long period of years, the so-called vacation typhoid again appeared prominently among the major incidences of disease during the summer months.

**Unapproved Water Supplies Can and Have Killed.
Avoid Them at All Times.**

Pennsylvanians, particularly urban dwellers, as a matter of fact, have taken their water and milk supplies so much for granted because of their established safety through scientific supervision, that they fail to realize that the supplies in the more remote sections of the Commonwealth and other isolated jurisdictions are likely to be not so pure as their appearance would indicate.

Of course, summer is over, and with it vacation typhoid is largely history for another ten months. However, it will do no harm again to emphasize the hazard of drinking from unpedigreed water and milk supplies. And this goes for all seasons and all places. Too bad that in this enlightened day and age with the protective features now existing to prevent it, typhoid fever should still make victims of Pennsylvania's citizens.

CRIPPLED CHILDREN'S HOSPITAL—Since the opening of the Crippled Children's Hospital several years ago, a total of 400 children have been treated at the institution. Most of these little people underwent major surgical operations, and by far the majority of them have been returned to their homes not only remarkably but spectacularly improved in their physical condition.

If one is skeptical about present-day miracles, a trip to the Crippled Children's Hospital or a study of the before-and-after photographs will immediately restore complete confidence in them. The hospital is doing a very great work, indeed.

In discussing the work at the hospital, Dr. Francis S. Chambers, medical director at the institution, said: "The nature of the disabilities have been such that long hospitalization has been necessary as 35% to 40% of our patients have had tuberculosis or other suppurating lesions of the bones and joints. Most of these patients have been admitted with their disease in an advanced state and seem in a practically hopeless condition. A large percentage of the congenital deformities have been in children of an advanced age. It is obvious that diagnosis should be made and treatment instituted more promptly in cases of congenital deformities"

HEART DISEASES LEAD—Heart diseases lead as death causes in the last twelve months in Pennsylvania. While, of course, there are many reasons for this condition including childhood maladies which affect the heart muscle, excessive injurious habits, and predispositions toward weakness in that spot, the fact remains that the annual physical examination will detect many conditions long before the individual himself knows that he has a weakness there. Thus, through foreknowledge, killing heart disease in many cases can be definitely thwarted. Why shy, then, at the periodic physical examination?

CANCER ESSAY CONTEST—Do not forget the Cancer Prize Essay Contest for public health nurses. As already noted, this contest is limited to nurses doing visiting work for state or municipal health departments, private organizations or insurance companies, Red Cross, business corporations, hospital social service departments, etc. The subject this year will be "The Function of the Public Health Nurse in Cancer Control." The prize will be $50.00. For details, write to Doctor J. M. Wainwright, Chairman, Cancer Commission, 609 Medical Arts Building, Scranton, Pa.

Incidentally, though not so incidentally at that, all state nurses doing Public Health work have been requested to write an essay on the above subject. The following books and pamphlets should be of assistance in preparing this paper:

- American Society for the Control of Cancer—Cancer Control; Report of International Symposium, 1927.
- American Society for the Control of Cancer—Fighting Cancer with Facts, 1916.
- American Society for the Control of Cancer—Report, 1928.
- Bainbridge, W. S.—Cancer Problem, 1914.
- Dublin, L. I.—Interest of the Community in Cancer, 1916.
- Wood, F. C.—Cancer; Nature, Cause and Cure, 1923.
- Pamphlet—Role of Nurse in Cancer Control.

The local librarian will be glad to borrow any of this material from the Extension Division of the State Library for the use of the nurses.

A book entitled, "How the Nurse Can Help with the Cancer Problem," and other pamphlets may be secured free of charge from the New York City Cancer Committee, 34 East 75th Street, New York City.

OFFICIAL COMMUNICATION ON MEDICAL SCHOOL INSPECTION—The practice of having school nurses, community association nurses, and other nurses presume to make physical examination of school children in connection with their routine school visits or to have nurses make the vision tests for the medical inspector is not permissible under the laws of Pennsylvania and MUST ABSOLUTELY BE DISCONTINUED.

No physical examination of school children, other than such general examination by authorized nurses to determine whether defects reported by the medical inspector have been corrected, or group inspections to detect signs of possible communicable disease, shall be permitted by school nurses, state nurses, community nurses, T. B. Association or Red Cross nurses, county or state department field workers. Physical examinations including *vision* and *hearing tests* shall be made ONLY by the authorized medical inspector of schools. If the medical inspector desires the services of an assistant, who is not a legally licensed Doctor of Medicine, he or she can be used only in the presence of and under the personal supervision of the School Medical Inspector and NOT OTHERWISE.

The weighing and measuring of school children may properly be done by nurses or teachers prior to the medical examination.

Section 1501 of the School Code specifically defines the qualifications of those who may make physical examinations of school children. They shall be authorized physicians "legally qualified to practice medicine in this Commonwealth, who have had at least two years' experience in the practice of their profession." Section 1505 provides that the *inspector shall* "carefully test and examine all pupils in the public schools, giving *special attention* to defective sight, hearing, teeth, or other disabilities and defects specified by the Secretary of Health." It is obvious that the medical inspector cannot give this special attention to eye and ear defects for each individual as contemplated by the Act of Assembly if vision or hearing tests are not made by the inspector in person.

We cannot impress, therefore, too forcibly upon all medical inspectors the importance of giving the most careful and searching examination of the eye with reference to corneal defects and injuries to the eyeball which may subsequently affect the sight of one or both eyes, as well as to visual acuity.

By order of the Secretary of Health.

J. Bruce McCreary, M. D.,
*Deputy Secretary of Health,*
*Director, Bureau of Child Health.*

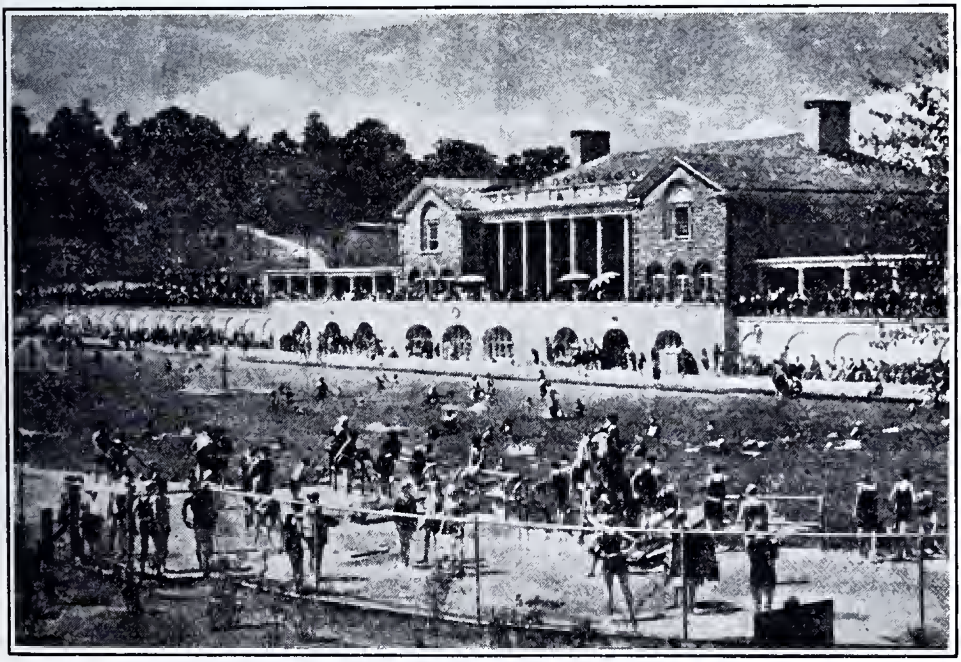
The above letter applies to school medical inspectors throughout the State in general, first, second, third, and fourth class school districts.

School medical inspectors in fourth class school districts have received an additional letter in reference to the use of the Teachers' Reports, Form 51-A, covering the medical inspection in each schoolroom. Duplicate Teachers' Reports are required to be filled in *personally* by the teacher with his or her signature attached to each.

Medical inspectors in fourth class school districts are cautioned that under no circumstances shall they ask the teachers to sign these reports in blank with the intention of afterward filling in the body of the report. The full rate of compensation will not be allowed for the inspection of a school if the Teachers' Reports have not been filled in in the teachers' own handwriting.

Teachers in fourth class school districts should, therefore, observe accurately to fill in every item on these Reports, Form 51-A, and to strike out before signing any printed statement on the Report that has not been included or covered in the inspection of their particular school.

J. Bruce McCreary, M. D.,
*Deputy Secretary of Health,*
*Director, Bureau of Child Health.*



**The Modern Swimming Pool, Properly Regulated, Removes the Disease Hazard from This Great Sport**

SWIMMING POOL INSPECTION—The engineering bureau reports that more than 700 bathing beaches and swimming pools were inspected by Department engineers during the recent season.

All bathing pools and public swimming beaches are now regulated by the Department and a marked improvement in sanitary conditions has resulted therefrom.

THE INTER-CHAMBER HEALTH CONSERVATION CONTEST—The Inter-Chamber Health Conservation Contest, first begun in 1929, has now completed its third year. During 1931, there were 265 competing cities representing 45 States, the District of Columbia and Hawaii. The evidences of interest in health work and the known accomplishments in many of the entered communities indicate that the past three contests have been most worthwhile. Among general benefits resulting from these contests are (1) the wide dissemination of information on public health, (2) the coordination of the various health agencies of a community, and the concentration of their efforts on outstanding local needs, and (3) the arousal of the interest of business men in their local health problems. Records of specific local accomplishments along such lines as the improvement of the milk supply, the carrying out of comprehensive immunization programs, periodic health examinations for adults, surveys of health activities, sanitary improvements, medical examinations of school children, and others also are available for many of the competing cities.

It is felt, however, that much yet can be done. THIS ANNOUNCEMENT OF THE INTER-CHAMBER HEALTH CONSERVATION CONTEST FOR 1932 IS MADE BY THE CHAMBER OF COMMERCE OF THE UNITED STATES IN CONFORMITY WITH A RESOLUTION ON HEALTH CONSERVATION ADOPTED AT THE CHAMBER'S SEVENTEENTH ANNUAL MEETING AND IN RECOGNITION THAT LOCAL CHAMBERS ARE COMING MORE AND MORE TO REALIZE THAT AN INTEREST IN THE PUBLIC HEALTH OF THEIR COMMUNITY IS A MATTER OF GREAT CONCERN TO THE CITIZENS WHO MAKE UP THE LOCAL CHAMBER. Detailed data is available either from the Insurance Department, Chamber of Commerce of the United States, Washington, D. C., or the Committee on Administrative Practice, American Public Health Association, New York City.

SOCIAL SERVICE AND THE STATE NURSE—As the result of instructions forwarded to all state nurses concerning babies with sore eyes many interesting cases have been reported.

One nurse writes that while making a child health visit she discovered a family of six blind people in the same apartment house. They had always been able to take care of themselves until the present time, but are now completely out of funds. The nurse secured county help for the family, made arrangements to have glasses repaired for one member who had some vision left, and made application to a blind school for two others.

A fine and wonderful group of women, these State Nurses!

THE JOHNSTOWN B. E. F. CAMP—Prompt and effective measures were taken by Secretary of Health Appel to prevent the outbreak of disease among the thousands of veterans who temporarily encamped at Ideal Park, near Johnstown.

With Governor Pinchot's approval, Coleman B. Mark, sanitary engineer, was recalled from active military duty at Mt. Gretna, and ordered to supervise the necessary plans for the development of safe and healthy sanitary conditions. He was assisted by sanitary engineer Chester Bell.

Drs. C. I. Shaffer and W. E. Matthews, county medical directors for Somerset and Cambria counties, respectively, were in charge of the medical service necessary to protect not only the members of the B. E. F., but the citizens of Johnstown and the surrounding territory as well.

The Secretary of Health also ordered the new mobile field laboratory from Philadelphia to Johnstown. This unit was equipped to handle not only bacteriological, but chemical examinations.

The fact that no epidemic resulted either in or outside the camp, and that the disease incidence among the members of the B. E. F. was negligible, is merely another proof of well directed and efficient public health protection.

STATE-HEALTH DAY CELEBRATION—On October 19th, Pennsylvania will celebrate a State-Health Day. Inspired by Dr. James Anders, of Philadelphia, and approved by Governor Pinchot and Secretary Appel, the latter being acting chairman of the State Committee, the various county medical societies are arranging popular health programs for that day. They are being assisted by the Woman's Auxiliary, the Pennsylvania Tuberculosis Society, the Pennsylvania Public Health Association, the Heart Association, the State Cancer Commission, the State Mental Hygiene Association, and other allied organizations.

Through the Department of Public Instruction due observance will also be made in all schools in Pennsylvania.

To make this celebration a success, the citizen must attend the meeting arranged for his particular locality. This will be a great opportunity to obtain valuable facts which, if applied, should materially aid in prolonging healthy, happy life. Don't miss it!

# Vital Statistics Comment

## THE BIRTH RATE AND INFANT MORTALITY RATE IN 1931

**Florence Hardy**
*Assistant Statistician*

THE provisional birth rate for Pennsylvania in 1931 was 18.4 per 1,000 estimated population. In actual numbers, the live births totaled 178,701. With the exception of 1906 and 1907, the first two years of registration, when birth reporting was obviously incomplete, this figure is by far the lowest ever registered in the State. It represents a reduction of 5.7 per cent from the 1930 sum and a 22.1 per cent decrease from the 1921 total.

The reduction noted between 1930 and 1931 is true not only of Pennsylvania but of the country in general. The birth rate for the Registration Area fell from 18.9, in 1930, to 17.8 last year. Undoubtedly the financial depression influenced this decline somewhat. The economic crisis affected not merely the birth rate but also the marriage rate which was the lowest in the State's history. Thus, there is a good basis for predicting that 1932 will witness a new minimum for births.

Pennsylvania's birth rate in 1931 was some higher than that of the Registration Area (17.8). As compared with the other States in the Area, the natality rate of the Commonwealth was fairly average, being higher than 23 states, lower than 19 States and the District of Columbia and the same as that of Michigan and Vermont. The highest rate in the Birth Registration Area was recorded in New Mexico and the lowest in Nevada. The birth rate in Pennsylvania last year was higher than that in the neighboring States of Delaware, Maryland, New Jersey, New York and Ohio. In point of numbers, the live births reported in this State were exceeded only by those recorded in New York.

The infant mortality rate in 1931 of 67 per 1,000 live births was the lowest in Pennsylvania's experience. If the 1906 rate had prevailed last year there would have been a total of 29,843 deaths under one year instead of the 11,905 which actually occurred. This represents a saving of 17,938 infants. Furthermore, this conservation of young life is more real than is indicated by the rate. The constantly declining birth total has maintained a higher infant mortality rate than would have obtained under normal conditions. If the infant deaths filed in 1931 were based on the live births recorded in 1921 the rate would be 52, an enviable record of which the state might well be proud.

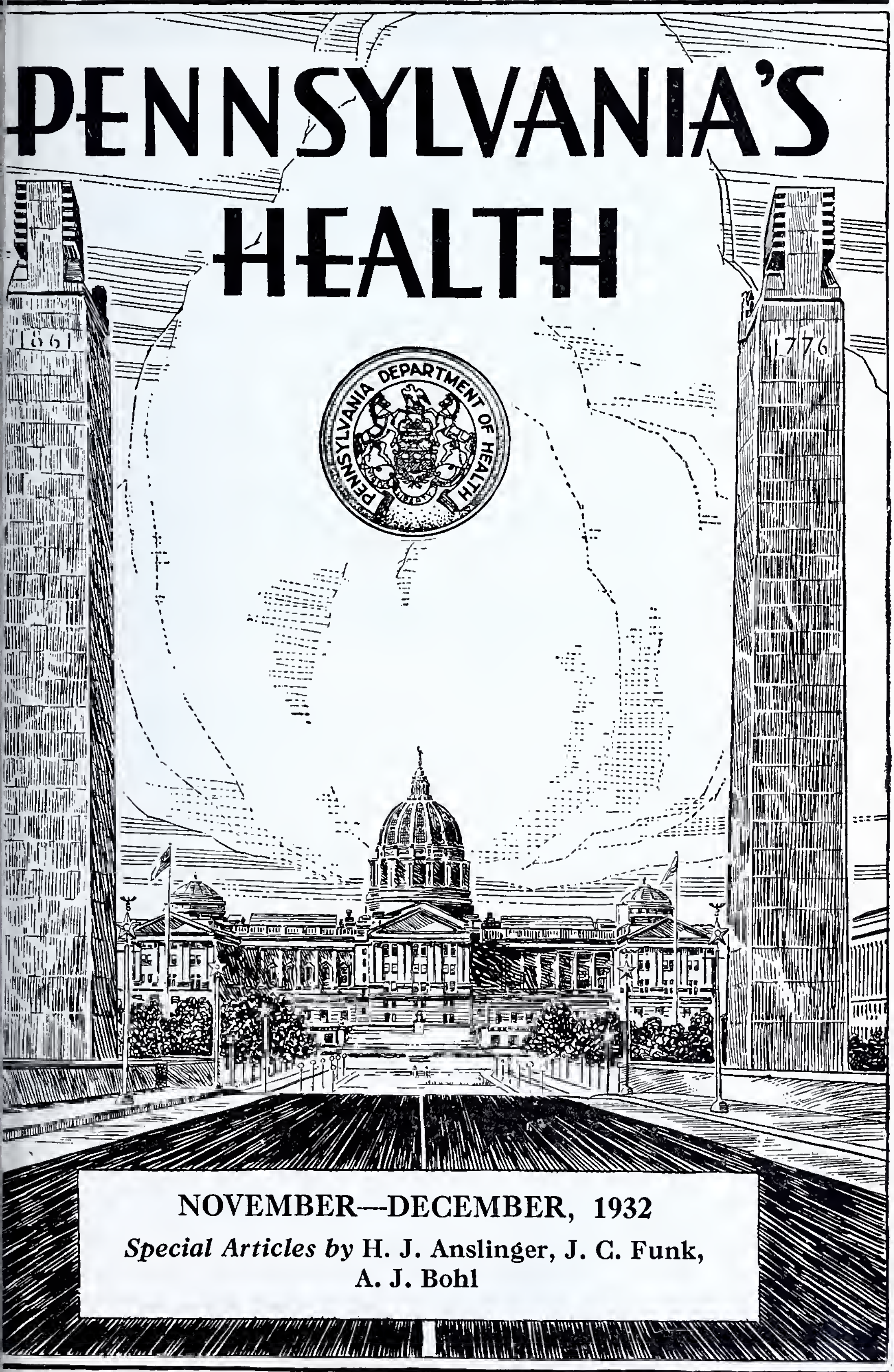
It follows that fewer births mean fewer infant deaths. However, the rate of decrease is much higher in the births and it is unlikely that the infant death total will be further reduced to an appreciable extent. Until the infant mortality from congenital malformations, diseases of early infancy, pneumonia and syphilis is lessened, the infant death rate will not be substantially diminished.

The birth rates and infant mortality rates which follow were prepared by the Census Bureau:

## PROVISIONAL RATES: 1931

| | *Birth Rate Per* 1,000 *Population* | *Infant Mortality Rate Per* 1,000 *Live Births* |
|---|---|---|
| BIRTH REGISTRATION AREA | 17.8 | 62 |
| Alabama | 22.9 | 63 |
| Arizona | 20.3 | 111 |
| Arkansas | 19.5 | 55 |
| California | 13.9 | 57 |
| Colorado | 17.5 | 83 |
| Connecticut | 15.7 | 54 |
| Delaware | 17.4 | 82 |
| District of Columbia | 19.0 | 67 |
| Florida | 17.9 | 64 |
| Georgia | 21.2 | 68 |
| Idaho | 20.1 | 57 |
| Illinois | 15.4 | 59 |
| Indiana | 17.2 | 58 |
| Iowa | 16.8 | 40 |
| Kansas | 17.3 | 48 |
| Kentucky | 21.3 | 66 |
| Louisiana | 20.2 | 66 |
| Maine | 20.2 | 72 |
| Maryland | 17.5 | 80 |
| Massachusetts | 16.1 | 56 |
| Michigan | 18.4 | 57 |
| Minnesota | 18.2 | 50 |
| Mississippi | 22.3 | 56 |
| Missouri | 16.4 | 64 |
| Montana | 17.7 | 61 |
| Nebraska | 19.0 | 50 |
| Nevada | 13.2 | 73 |
| New Hampshire | 16.6 | 57 |
| New Jersey | 15.6 | 57 |
| New Mexico | 28.4 | 126 |
| New York | 16.1 | 56 |
| North Carolina | 23.0 | 74 |
| North Dakota | 20.4 | 60 |
| Ohio | 16.1 | 60 |
| Oklahoma | 17.7 | 52 |
| Oregon | 13.6 | 44 |
| PENNSYLVANIA | 18.4 | 67 |
| Rhode Island | 16.3 | 61 |
| South Carolina | 22.2 | 83 |
| Tennessee | 19.7 | 68 |
| Vermont | 18.4 | 60 |
| Virginia | 21.3 | 77 |
| Washington | 13.9 | 48 |
| West Virginia | 22.5 | 77 |
| Wisconsin | 18.3 | 53 |
| Wyoming | 19.8 | 66 |

# PENNSYLVANIA'S HEALTH



NOVEMBER—DECEMBER, 1932

*Special Articles by* **H. J. Anslinger, J. C. Funk, A. J. Bohl**

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# Pennsylvania's Health

Official Bulletin of the Pennsylvania State Department of Health

THEODORE B. APPEL, M. D., Secretary of Health
J. CLARENCE FUNK, Sc. D., Editor

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# Editorial

## HEALTH—A FUNDAMENTAL REQUIREMENT

THE laudable desire to gain position, power and wealth is displayed in varying forms by nearly everyone. The capitalist, the professional man and all other individuals, according to their natures and limitations, make efforts in these directions.

Unfortunately, to a much less limited group, the things of the spirit are considered to be of very real value; and a corresponding effort to attain them is made, again within the capabilities of the person involved.

However, when it comes to the subject of health, one is confronted with the somewhat incomprehensible fact that most persons are inclined to relegate the matter to a very remote place in their consciousness. Thus, they give it attention only when it no longer exists.

Much like closing the stable door after the horse is stolen, the average person takes the health that the gods provide and promptly censures them when their bounty, through no celestial fault, is denied. Hence, one is confronted with the killing perversity of human nature.

"To be rich, to occupy high position, even to woo the things of the spirit, are natural activities. But health, why bother about that? I have it. That is enough." Thus do the majority argue.

True, if individual health were an automatic affair, and the well from which it is drawn an inexhaustible one, such a philosophy might be admitted. What such reasoners miss is that, like all worth while things in life, personal effort is the only element that abundant and sustained health recognizes.

Vibrant well-being for the adult, unlike the babbling brook, does not "go on and on forever." Indeed, the gracious abundance of vitality, which is a natural accompaniment of youth, gives way to the chiseling power of time.

Therefore, those who enjoy life and who desire to respond to its reactions in maximum terms of vim, vigor and vitality, cannot safely refuse to appreciate the obligation that they owe themselves to attain and maintain the utmost bodily tone. As a matter of fact, life will mock those who fail to grasp the basic necessity of abundant health and the incalculable value of its possession.

Indeed, what price glory, or what price anything, with health, the gift of earthly gifts, unattained? There is no more appealing object than today's image of the Great Philosopher in the form of a well man. Are you such an one? And is it your intention to remain that way? No system of life can be satisfactory without an affirmative to these questions.

*J. C. F.*

# THE STATE FUNCTION IN NARCOTIC DRUG CONTROL

**Harry J. Anslinger**

*United States Commissioner of Narcotics*

COOPERATION is the keystone of successful narcotic law enforcement within the United States. In controlling the traffic in narcotic drugs, the federal government has its responsibility, as has the government of each of the several states, but the most efficient degree of control can only be obtained when the activities of each government, federal and state, are complementary.

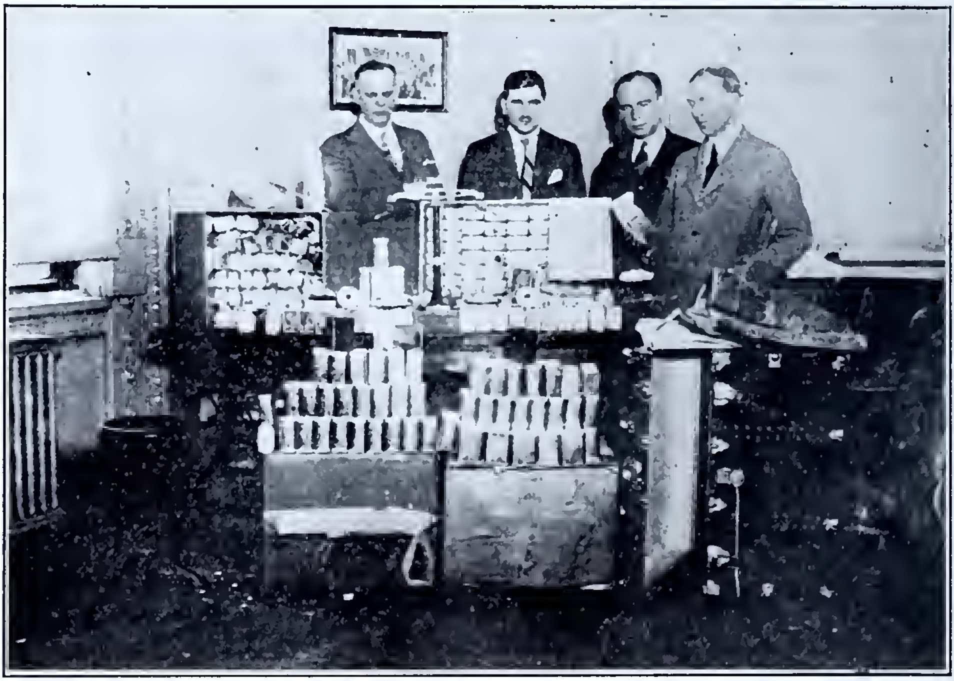
Federal governmental responsibility in this field is two-fold. There is first the permissive function, which consists in authorizing the importation of sufficient supplies of crude opium and coca leaves for domestic manufacture into the forms of derivatives necessary to supply the medical and scientific needs of the United States. No manufactured form of opium or coca leaf derivatives, such as morphine, heroin, codein, or cocaine, may lawfully be imported under any circumstances. Secondly, there is the prohibitive function, which consists broadly in preventing the availability of any supply of these narcotics, whether of foreign or domestic origin, to the illicit traffic. For the performance of these two fundamental duties, the United States Bureau of Narcotics was created, which bureau enjoys the active and efficient cooperation of the Department of State, the Bureau of Customs and the United States Public Health Service.

The Bureau of Narcotics, with the assistance of the Division of Mental Hygiene of the Public Health Service, is careful to authorize sufficient supplies of the crude drugs to meet not only current medical and scientific needs, but also to provide reasonable reserves for such unexpected demands upon the medical and pharmaceutical professions as that resulting from the influenza epidemic of 1928–29. The successful performance of the prohibitive function, however, constitutes the greater problem, and the discussion which follows relates more particularly to this phase of enforcement.

## Fighting the Smugglers

Recognizing that the principal supply of the domestic illicit traffic is represented by narcotics of foreign manufacture smuggled into the country and distributed by rather well organized groups of ingenious criminals, the Bureau of Narcotics directs major and unremitting investigative effort toward the detection and prevention of (a) unlawful introduction of narcotics into the country, (b) unlawful interstate traffic therein, and (c) unlawful intra-state traffic and distribution by peddlers who deal in what may be termed wholesale quantities. To supplement this plan it is contemplated, and efforts have been and are being made to solicit, that the authorities of the states and of the subordinate political subdivisions thereof accept and discharge the responsibility of investigating, detecting, and preventing or punishing what may be termed the local retail illicit traffic conducted by the ordinary street peddler and of the institutional treatment of the narcotic drug addicts within their respective jurisdictions.

The federal governmental agency, in the fields of activity outlined above, has achieved a fair degree of success. In December, 1930, the S.S. Alesia, from Istanbul, unloaded at Brooklyn, N. Y., 25 cases of merchandise billed as furs and consigned to order. These 25 cases were seized by federal officers and found to contain 17,500 ounces of morphine hydrochloride packed in one-ounce cans. On April 24, 1931, federal officers seized, at Pier 84, North River, New York, from the S.S. Milwaukee, a shipment of 17 cases billed as cottons, but which actually contained 3,568 ounces of heroin hydrocloride, 7,050 ounces of morphine hydrochloride, and about 15,675 ounces of crude opium. As instances of federal activity against the illicit interstate traffic, there may be mentioned the arrest of one Earl Adams and another in Oklahoma on May 28, 1931, for the unlawful shipment from Fort Worth, Texas, to Tulsa, Oklahoma, of a trunk containing 218 ounces of morphine hydrochloride and 48 ounces of heroin, and the arrest of one Joseph D. Condi and several others in Chicago, in March, 1931, for several unlawful interstate shipments amounting, in one instance, to a quantity of 134 ounces of morphine hydrochloride. Similar examples could be cited of activity against the unlawful intrastate wholesale traffic.



**Federal Seizure of Morphine and Smoking Opium in Drug Trafficker's Apartment**

## Necessity of State Cooperation

The states, in the performance of what is apprehended to be their function under the general plan of enforcement should, as previously noted, take action against the local retail illicit traffic and should provide compulsory institutional treatment of the narcotic drug addicts within their respective jurisdictions, or at least, of such numbers of these addicts as are not suffering from any physiological disorder which prevents withdrawal of the drug. Persons licensed by the state to engage in a business or profession in the course of which narcotics are sold or dispensed for medical purposes should have their licenses suspended or revoked for the sale or dispensing of narcotics in other than an ethical manner, and this includes such persons who dispense to themselves narcotic drugs for the sole purpose of gratifying addiction. The forging or falsification of narcotic prescriptions should be penalized.

## What Pennsylvania Has Done

To carry out this function, it is first necessary that each state enact adequate narcotic laws and, of course, adequate enforcement machinery must be provided. Pennsylvania is a good example of a pioneer state in the enactment of modern narcotic legislation of this character. The first narcotic legislation in the state appears to date back to July 10, 1883, when a state law became effective making it unlawful to maintain or frequent any building or other place for the purpose of using opium, and it also prohibited the possession of any instrument or appliance to be used in connection with the illegal use of opium. This law, which is still in effect, appears to have been the nucleus around which Pennsylvania has built up an efficient system of narcotic control legislation. Some of the outstanding features of this legislation are briefly described as follows:

No person is permitted to administer to himself or administer or cause to be administered to another person any narcotic drugs, except under the direction of a regularly practicing and duly licensed physician or dentist. Exempt narcotic preparations and remedies, of which paregoric is an example, may not be sold to any known habitual user of narcotics or to any child 12 years of age or under, except in pursuance of a prescription of a duly licensed physician or dentist. Addicts may be committed by local courts and magistrates upon the furnishing of certain evidence of drug addiction. The establishment of county industrial farms, workhouses and reformatories, with a separate department for treating drug addicts, is authorized. Institutions in which habitual users of narcotics are treated must render an annual report to the State Department of Health, giving the names, addresses, ages and clinical condition of all addicts treated and the results of the treatment. Any physician who undertakes to cure an addict of the habit must report in writing to the State Department of Health the name and address of the addict, the physician's diagnosis of the case, the amount and nature of the drug prescribed or administered in the first treatment, and when the patient leaves his care, the physician must report the result of said treatment. The license of any physician, dentist, veterinarian, pharmacist, druggist, or registered nurse may be revoked when such licentiate has been convicted of a violation of the state narcotic law.

The present law is, of course, still susceptible of improvement in some particulars. Thus, the reductive ambulatory treatment for the cure of narcotic drug addiction appears to be authorized, although this treatment in the light of present scientific medical progress appears to be foredoomed to failure so far as effective results are concerned, in the opinion of the Federal Narcotic Bureau. There is provided, however, a valuable check upon the results of such treatment in the system of reports required by the State Department of Health. The licenses of professional persons should be revocable after conviction of violation of the federal law (The Harrison Narcotic Law, as amended) as well as after conviction of a violation of the state narcotic law. Notwithstanding this suggestion, however, the fundamental law may be regarded as an effective narcotic measure.

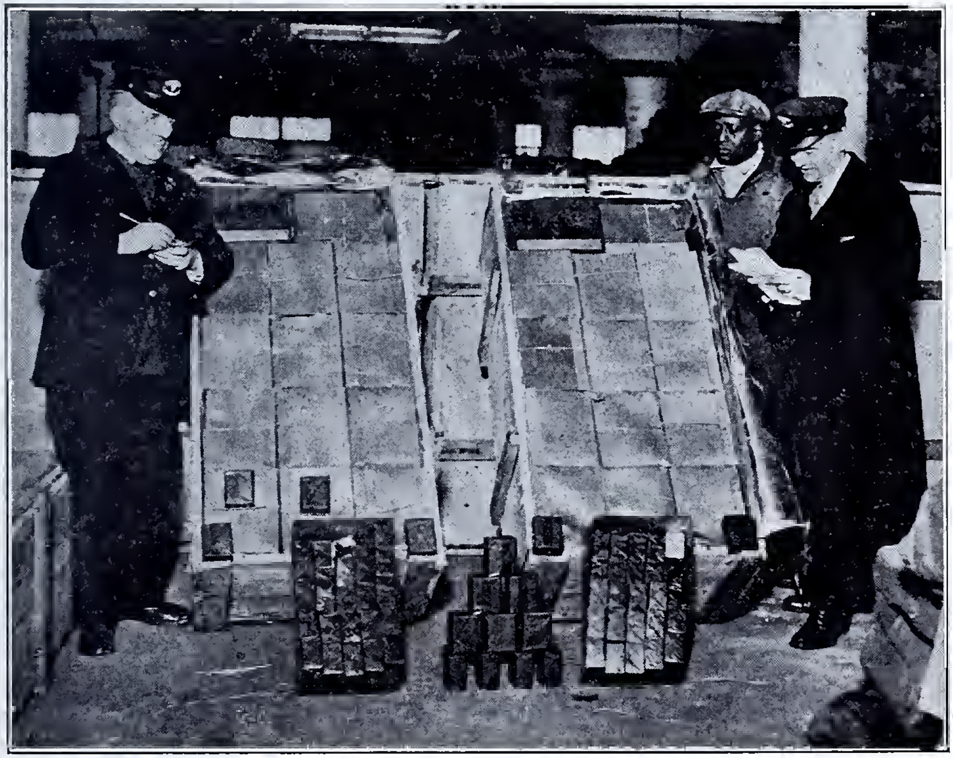
## Enforcement Essential

Although a state may have an efficient basis in legislation for narcotic drug traffic control, it cannot hope to solve its narcotic problem without provision being made for the aggressive and intelligent enforcement of that legislation. Here, again, the State of Pennsylvania is worthy of commendation for the manner in which it has met this obligation. It has charged the State Department of Health with the duty of enforcing the state narcotic law and has placed in charge of this particular work an efficient executive who, with his group of capable assistants, not only gives effect to the state law in a manner that must be very satisfactory to the state authorities but also lends federal narcotic law enforcement officers within the state most cordial cooperation. This harmonious relationship between the two services, supplemented by the capable assistance of State Police and county and city enforcement officers, brings about very nearly ideal conditions for the suppression of the illicit drug traffic in Pennsylvania. The activities of all these state enforcement agencies are, furthermore, amply supported by the action of the state courts which, in disposing of the criminal cases presented, evidence a determination to impose penalties commensurate with the offenses thus discouraging recruits to the ranks of the street peddlers.

To illustrate, let us take a concrete example. On February 13, 1931, in Chester, the state court had before it eighteen convicted violators of the state narcotic law. Four of them received sentences ranging from 17 months to five years each with a fine of $50.00 and costs; eight received sentences ranging from 16 months to five years each and a fine of $50.00 and costs; two received sentences ranging from 14 months to five years each and a fine of $50.00 and costs, and four were sentenced to terms of from 13 months to five years each and a fine of $50.00 and costs. These violators were narcotic addicts who were peddling narcotics in "decks" or packets of approximately two grains each. At the time of their arrest a number of other peddlers of the same class were also scheduled for arrest but managed to evade the officers and have not since been located. It is a fair inference that those who escaped have become convinced that Pennsylvania is far too dangerous a jurisdiction in which to operate, and have left the state.

It is submitted that the results accomplished amply justify the attention which has been given to the enactment of a suitable system of narcotic control legislation in the state and the expense of its enforcement. In rehabilitating the narcotic drug addict and eliminating the narcotic peddler, the state not only accomplishes a praiseworthy moral purpose but lifts an economic burden from its people as well, for the average addict and the peddler are parasites whose expense to the community as non-producers cannot be justified.

A number of other states have, like Pennsylvania, attempted to modernize their narcotic legislation and have afforded the Federal Narcotic Bureau valuable aid in curbing the traffic within their respective borders. If the remaining states would take the same steps in discharging their duty in this important branch of public service it is confidently believed that federal enforcement effort, thereby concentrated in even greater degree to its particular sphere of activity as previously described, would be crowned with a correspondingly greater degree of success in closing the larger sources of supply of the street peddlers. Without in any sense seeking to overemphasize the extent of our domestic illicit traffic, we must face the fact that as long as there are addicts in the country who have no medical need for the drug, there will be the narcotic problem of eliminating their sources of supply and channels of distribution. Regardless of the success or failure of efforts to reclaim and rehabilitate those persons now unfortunately addicted to the use of these drugs, the present plan of enforcement, directed toward limitation of all supplies of narcotics to bona-fide medical and scientific channels only, will prevent the formation of the habit by persons not now addicted. Without consumers, the illicit traffic, of course, cannot exist. When this eventuality is achieved, however, it cannot be maintained without continued adherence to the plan. As cooperation by state authorities is a necessary factor of the plan, that cooperation has been and will be most respectfully but urgently solicited.



**17,500 Ounces of Morphine Seized on Board Ship by Federal Officers**

# The Health Gnome Says—

Public health officials
With all their rules and laws;
Cannot by any way or means,
Control a person's flaws.

One eats too much or little,
And robs himself of sleep,
Ignores the moderation call;
And will not use his feet.

No wonder, then, that thousands
Die long before their time;
Offenders of Old Nature's laws
And thus expiate their crime.

And so it sadly comes to pass,
In spite of all prevention;
That foolish people will persist,
In deadly circumvention.

But how much better it would be,
Instead of fighting life;
If persons would cooperate
And bring victory to the strife.

Public health has done its part,
And sincerely wants to help;
But it can do little for the chap—
Who will not help himself.

*J. C. F.*

# IS YOUR LEISURE A MENACE OR HELP?*

**J. Clarence Funk, Sc. D**
*Director, Bureau Public Health Education*

WALKING across Madison Square Park in New York City some months ago a friend derisively noted the number of chronic loafers on the benches.

"Fine way to spend a life time!", he exclaimed. "If those fellows had used even a fraction of the steam with which they were endowed they might have been valuable to themselves and the world."

Now this gentleman could well be excused for assuming such a natural attitude toward the shiftless in view of his great self-made success. But the point of the story is that at dinner the other evening he slumped in his chair and died, a victim of an extreme and sustained activity.

Indeed, this outstanding man openly boasted of his high-pressure gait and with great gusto displayed the prizes which were the results of it—a tremendous business, a beautiful town house, a summer place on Long Island and a fancy stock farm in Connecticut. Nevertheless, everyone will agree that one is much too young at fifty-three to surrender such rewards, particularly when a sensible regulation of the "off" hours would in all likelihood have added more years to a very worthy and useful life. However, his case is typical of many men of affairs who, keyed up to the modern tempo, remain keyed up under all conditions, dupes of vitality consuming leisure.

Of course, it is true that some persons kill themselves solely by overwork, but the fatalities that can be definitely traced to that cause are few. It is the work and play combined that usually do the real damage. Or to express it more succinctly, it is the misuse of one's spare time.

Consider, for example, the efficiency man of a large manufacturing establishment. He was nationally known for his ability to reduce overhead, increase production and, through his inimitable "pep" talks, engender fervor on the part of the sales personnel. Some of his immediate associates in a friendly spirit called him "the lash." And how he liked it!

But, despite his achievements, he made a fatal mistake. He was never able to draw the line between work and recreation on this efficiency business. So at night be cavorted with efficiency. On weekends he golfed thirty-six holes daily with efficiency, and danced or bridged into the wee hours with efficiency. Then, with a startling consistency, though quite prematurely, he died with efficiency!

It is perfectly logical to assume that had this ninety-mile-an-hour business man reduced his speed as he left the factory and used even a small part of his really magnificent brain upon his physical well-being, his leisure time would not have been devoted to slow suicide but rather to the upbuilding of his vitality which was so sorely in need of it. But, having set a praiseworthy pace in business, he foolishly elected to maintain it in all his personal activities, thus climaxing his endeavors by becoming a "horrible example" of a brilliant mind being brilliant about everything except the body housing it.

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*This article originally appeared in *Hygeia,* and is reprinted with the consent of the publisher, The American Medical Association.

Too bad! But this psychology painfully pervades all groups today. Released by the machine from life's former drudgery, hundreds of thousands are habitually squandering not only their spare time, but in the process, their health and not infrequently their lives.

Moreover, in facing facts, one is compelled to admit that many of the young people of today, over-burdened with leisure as they are, spend too much of it on neurotic automobile night excursions and allied distractions that have nothing to commend them from the standpoint of health and the real joy of life.

In this connection, a young "wreck" was brought into a physician's office the other day. At nineteen, this juvenile sophisticate had run the gauntlet of present-day, high-speed fun and, to quote her doting mother, "needs some medicine to build her up."

Wooing Health—A Little Leisure for This Sort of Thing Will Pay Handsome Dividends

"What your daughter requires, madam," advised the doctor, "is a return to normal living. No more inhaled cigarettes, synthetic gin, jazz-mad parties and pleasure-consuming nights. Give the child plenty of fresh air, nine hours sleep each night, proper food in sufficient quantities and a wholesome viewpoint of life. A rational and healthy use of her time will save her. Tonics won't!" Such a suggestion could with great advantage be applied in many American homes today to the boys and girls alike who make a nerve-wracking business of their leisure.

On the other hand a vast army of persons, instead of madly pursuing thrill-developing dissipations, spend their leisure in innocuous desuetude. To this group belong the hundreds of thousands of indoor workers who are nightly held captive by the radio dial, the bridge table or the movie. Caught by these justly appealing recreational allurements, these people cannot be condemned in the least for being attracted to them, but they are very much to blame when their addiction is so acute as to affect health.

An example of this class is the middle-aged accountant who leaves his office late in the afternoon, rides home in the trolley, eats a big meal, establishes himself before his superheterodyne, gets a distant station and at 1:00 A. M. shuffles off to bed anticipating a repetition of his nightly practice on the morrow. This fellow on the verge of a nervous breakdown recently sought medical advice. Instead of getting "pills," he was ordered to spend a little less time at his worthy radio and more time in the outdoors and in bed.

Again, purses of many husbands have made it possible for a large number of women to belong to the great mass of "unemployed." With time literally a drug on the market, many of these ladies "drug" themselves into an unfortunate state of inactivity.

To this ever-increasing group belonged the wife of a steel executive. With no household cares to "trouble" her, she became a de luxe bench-sitter. Breakfast in bed, telephone gossiping with friends, solitaire, luncheon, bridge or the talkies, then a big dinner followed by a book or more bridge.

At fifty she toddled into the office of a neurologist. Questioned by this specialist as to what she had been doing she resentfully announced that she had done nothing.

"And that exactly is your trouble, dear lady," the doctor replied. "It is high time that you are up and doing. You are loafing yourself to death!"

It would thus appear that this modern luxury of leisure is in reality doing some very definite back-firing. Perhaps therefore it is time to stop, look and listen. That there are many doing this very thing there can be no question.

Typical of this large group is the president of one of the largest mercantile houses in the United States. In discussing the subject with him recently he said, "Leisure is my greatest asset. I make it pay handsome dividends."

"You work at it, then?", I asked.

"Not in the least. I am not one of those fanatics who are eternally seeking vim, vigor and vitality, but I do relish a four-mile walk daily, reasonable relaxation and my eight hours in bed." Which seems to illustrate the tendency among many of today's leaders who emphatically refuse to be victimized by leisure.

Indeed, large groups of younger persons also decline to submit themselves to the tyranny of devitalizing indulgence that has marked the leisure of many of their contemporaries. Even lipstick and rouge have to some extent lost their standing in their attempts to cover up physical weakness due to leisure's excesses. And by the same token, pale faces and lounge-lizard bodies shot with "nerves" have little appeal to the fair sex compared to the full blush of vigorous manhood now so much in the mode.

In fact, thinking people of all ages and classes are really giving serious thought to the proper use of this recently won freedom called leisure. They are gently and joyfully bending it to their will instead of becoming its slaves.

**Listening to Fatigue's Voice is an Admirable Way of Spending Some Leisure Time**

As with every other human proposition, so with leisure; vibrant life always will deserve the first consideration. Nevertheless, too many people have yet to learn that there are sufficient inescapable exactions in modern existence to drain vitality without seeking additional ones in the spare time. Somehow this thoughtless host must be made to understand that wisdom and common sense should invariably prevail in the use of this priceless gift of leisure. Incidentally, what are you doing with it?

# A CHRISTMAS SEAL APPEAL

**Arthur M. Dewees**

*Executive Secretary, Pennsylvania Tuberculosis Society*

AT ALL times there is need and place for active interest in public health work on the part of citizens in every community. There is a very definite responsibility, beyond the payment of taxes, resting upon the people generally to assist physicians and state and local officials charged with the duty of preventing disease and promoting health. Indeed, those in charge of the Department of Health, whether it is the state, city or smaller district, can accomplish best results only if they have the intelligent and constructive support of the people at large.

**The Disease-Killing and Life-Giving Seal**

The organized fight against tuberculosis is a good example of what may be done by means of citizen effort to help the official health agencies in one of their most difficult problems. In all sections of Pennsylvania men and women have banded together in permanent organizations or committees for the purpose of assisting health officials and physicians in efforts to prevent and bring tuberculosis under control—one of the most devastating and costly diseases with which human beings are afflicted.

It is to the great credit of Pennsylvania that from the time the State Department of Health was established the discovery, treatment and prevention of tuberculosis have been, and still are, among its major activities. This extensive and happily effective effort to combat one disease has been possible largely because of widespread interest on the part of citizens of the Commonwealth in waging a vigorous fight against this enemy and of willingness to do their full part to assist in the fight.

That this is a fact is proven by the formation of citizen committees and organizations and by voluntary contributions on the part of many thousands of people each year in the Christmas Seal sale for the purpose of financing citizen tuberculosis prevention activities.

There probably has been no time in the period of Pennsylvania's fight to conquer tuberculosis when whole-hearted joining of forces on the part of private and official health workers was more needed than at present. In the twenty-six years' history of the Department of Health, which is almost exactly coterminous with the history of the nation-wide voluntary tuberculosis prevention movement under leadership of the National Tuberculosis Association, we have seen the tuberculosis death rate for Pennsylvania decline from 151 to 58 per 100,000 population. But there are still thousands of deaths from this preventable disease each year.

Under prevailing industrial and social conditions there is serious danger of ground being lost. There is no question that in the deprivations and stress of these times, the health of children and young people, especially, is being menaced. Positive evidence of the danger of tuberculosis gaining a new foothold in our state is the increased number of people going to clinics and the large waiting list of both adults and children for the sanatoria.

The 1932 Christmas Seal pictures a little boy and girl, dressed in the costume of the middle ages, standing in the snow lustily singing a carol. "What are they singing?" is the natural question. The answer can well be "A hymn of thanks for the protection Christmas Seals have given them in the past and a plea for the continuance of that protection."

The picture is quite appropriate because the tuberculosis societies devote much of their attention to discovering tuberculosis among children and guarding them from it. Their plea that Christmas Seals be purchased and used generously in order to protect children is a most logical one because tuberculosis kills more persons between the ages of 15 and 45 than does any other disease.

# ARE YOU PROUD?

**A. J. Bohl**

*Supervisor of Health Officers*

ONLY a score of years ago a young mechanic abandoned his repair shop to go into the automobile business. He prospered in it. Today he is one of the world's wealthiest men; and the cars from his factories may be numbered in millions. No doubt he is proud of his success and his motor cars. He may well be, for both are the results of his skill and courage.

Suppose you buy one of his cars, new and gleaming, fast and comfortable. Are you proud of it? Of course you are. But just why should you be? You haven't contributed anything to its perfection, you didn't design it, didn't make any of its parts nor help to assemble them into a smooth running and efficient whole. You didn't even fill it up with gas and oil and water. But still you're proud of it, and again, why? Well, just because it's yours. Because you earned the money necessary to purchase it.

Now the men who designed it and built it, the men who are responsible for its being, can rightfully be proud of their accomplishment, but is there any good reason why the mere possession of an inanimate object should arouse great pride? Whatever the reason may be, it remains a fact that it is perfectly natural for us humans to take pride in our possessions. We are proud of our good-looking hats and clothes, proud of the pictures we own, pictures perhaps from the brush of a famous artist, proud of all these things, but unfortunately these are not the real things that count.

You have recently seen advertisements in the pages of your favorite magazine concerning the foolishness of the man who takes good care of his car, but neglects his teeth. You all know someone who is particularly fussy about the fit of his clothing, but whose body, upon which that suit is artfully draped, must be something to excite the laughter of the gods. You are all acquainted with the woman who can drive a shoe salesman raving mad, so finicky is she about the appearance of her pedal integuments. But alas, what of her feet; are they smooth and soft and shapely, or are they flat, and full of corns and callouses, and maybe bunions?

This is a peculiar quirk of the human mind, this pride in things—natural as it is. But pride should be taken in the human body, in its appearance, its efficiency, its health and well-being, and not alone in its artificial covering, or its ornamentation and housing.

Not long ago I read a story about the nudists, a story with a moral. And the moral ran something like this—if the cult became universal, wouldn't people pay more attention to the appearance of the bodies? I don't think we need to have any debate on that subject, for the answer is undoubtedly in the affirmative. There's a fairy story about the ostriches; how they stick their heads in the sand and, therefore, because they can't see anything, believe that they themselves are invisible. It is a fairy story, so far as the ostriches are concerned, but here are we, thinking, reasoning humans, hiding unshapeliness beneath sixty-dollar suits. Well, just a few years of nudism, and spare tires on the waistline would be definitely passe. Therefore, why not all be nudists mentally?

What causes all these ungainly figures, these funny shapes, that crowd our land? Compare them with the lower animals, who run pretty true to type. If there is any difference among members of a species it's usually one of size only, and unshapeliness is practically non-existent. Our human race differs widely in size and shape, it's true, which is very likely a result of the mixture of races in the human "melting pot" but, why do some people have slim and shapely bodies while their next door neighbors carry around enough adipose tissue to load a wheel barrow? Who knows, definitely? In my opinion, and it is only an opinion, much may be traced to abnormal diet.

Every wild animal eats all it can get, stuffs itself at times, perhaps, if it has the chance. But it doesn't often get the opportunity. Most wild animals have to struggle for their food. Day in, day out, the animal will eat just about enough food, seldom too much. Humans are different, most of us are gourmands, or if not, then gourmets, both being people who live to eat. I'll grant you, without an argument, that eating good food is a delightful occupation and one of the best of indoor sports. And it's the indoor sports who indulge in the habit, mostly. Because of these conditions, the run-of-mine humans just eat and eat, three meals a day and couple of snacks in between. Just watch the fellow who "doesn't eat enough to keep a canary alive." See if he doesn't imbibe a few chocolate milks during the day, and a "little" candy at more or less regular intervals. Indeed, the human beings are few and far between who will voluntarily go hungry, day after day. Most of us eat too much.

**Pride in Health and the Habits That Produce It is Reasonable Pride**

It is a matter of pride with many women to set a good table, to prepare for their families all the good grub the table will hold, and they'd feel hurt if said family didn't clean up three times a day. Likewise, it's a matter of pride with many men to put away their three squares a day; to eat, at dinner alone, enough food to supply them with their required nourishment for twenty-four hours!

These prides are all right, supposing that after all you are maintaining the health of your family and yourself. But if this isn't true, if overweight is your lot in life, if indigestion and gas and acidity are the bane of your existence, wouldn't a normal diet, a normal figure and a normal digestion be better cause for pride?

**If Properly Proud One Will Keep His Eye on the Health Rules**

Most of this overeating, you know, is just plain self-indulgence, selfishness, if you like, and that isn't something of which to be proud. Suppose you have a fine horse, or a good pedigreed dog. You're proud of your handsome beast, you feed him by rule, on selected foods, and see that he doesn't get too much. The animal shows the effects of his abstemious life. Look at his healthy, glossy coat, the muscular fineness of his legs and body, the brightness of his eye. He's healthy, he's fit, full of spirits and rarin' to go. Would he, do you think, be like that if you stuffed him thrice a day with a tray full of assorted comestibles? Well, then, why be so proud of your pet, so careful of him, and neglectful of yourself?

This pride business, rightfully directed, can be a marvelous force. Men have risen to be masters of finance, of law, of art, have become famous in sports and athletics, through the aid of pride. Pride in such accomplishment is admirable, most admirable, and never more than in the building of a strong and healthy body. You know the old Latin tag, "mens sana in corpore sano," and you know what it means. It's true, too, for a healthy mind must have a healthy body to provide for its needs. So, be proud if you must, but don't be exclusively proud of unessentials. Don't be proud only of your accumulation of cash, or your fine car, or your new suit. Be proud of yourself, of your health and endurance, of your own accomplishments. What joy in a fine car, if your tremendous tummy makes it almost impossible for you to sit back of the wheel, or in your fine suit if it covers a flabby, ugly body?

Now, what to do about it. Modernly, it seems to be the opinion of medical men that fatness can be overcome, that strict attention to diet will actually reduce the too, too solid flesh under which some of us stagger.

But don't go bolshevist about your diet. That isn't sensible. Nut and fruit diets are simply silly, and so are the rest of the food fads. We need all sorts of foods—meats, vegetables, fruits, milk, all of them. Cats can live on an exclusive meat diet, and cows thrive on hay and grain, but we're humans. If you must follow a fad, let it concern your hats, or your ruby-red nail polish, or anything that doesn't affect your health. Let your diet be normal, both in make-up and in quantity. Let it be varied, but simple, tasty, but easy to digest. And eat it at meal times, not spread out from breakfast to midnight. Your digestive organs need rest once in a while.

And so, if you are too fat, here's a ray of hope. Do something about it. Regain that supple, sprightly body that was yours. Eat wisely, sleep enough, exercise those lazy muscles. Get back to the real business of life, which is living, healthily and happily. Then, indeed, you can rightfully be proud.

## DEPARTMENT NEWS

STATE HEALTH DAY CELEBRATION—The recent observance of State Health Day, which was designed to emphasize to the public the fundamental facts regarding disease prevention and the personal part involved in life prolongation, was one of the most successful attempts ever made in this Commonwealth thus to popularize health education.

Public health officials have realized for some time that the big problem in the reduction of many of the killer diseases, now taking such a large toll, will be influenced not so much by public health measures but by individual conduct. Until the average citizen realizes the disadvantage of bad habits and methods of living which are contrary to the highest degree of vitality and vigor, the disease and death rates for many of the high-powered maladies of the present day will continue to be excessive.

The reports received from the various county medical societies, which were charged with the duty of preparing the popular programs in their respective localities, as well as the information received from the State Department of Public Instruction relative to the observance of State Health Day in the high and grade schools, indicate the great interest taken in this matter, not only by professional groups but by the public at large.

Hats off to Dr. James M. Anders, Philadelphia, who inspired the idea; to Governor Pinchot who approved it; to Secretary of Health Appel, who was chairman of the general committee; to Superintendent of Public Instruction Rule, who made the celebration at the schools possible; to the members of the general committee; and last but by no means least, to the county medical societies of the Pennsylvania State Medical Society, which, after all, were responsible for the actual programs as presented throughout the Commonwealth. Added to these felicitations must be those directed to the general public who so enthusiastically, encouragingly and sympathetically attended the meetings. This indeed represents a step forward in Pennsylvania's health educational program.

SMALLPOX PREVENTION—There appears to be a general impression throughout Pennsylvania that children do not need to be vaccinated for smallpox until they reach school age. From the standpoint of legal requirements this is a fact. However, from the angle of protection, it is quite the opposite. Smallpox is just as likely to attack a small child from six months or upwards as it is to make a victim of those of six years old and older.

Parents therefore would do well to have their children vaccinated promptly after the first six months of life. It is a harmless control for this dread disease; and by adopting such a procedure in the early years of the child's life, it thereby is afforded the protection during a very vulnerable period. Why wait until one *must* vaccinate the youngsters for smallpox?

HELPING THE CRIPPLED CHILD—A report submitted to the Secretary of Health by Dr. Francis S. Chambers, medical director of the Crippled Children's Hospital, at Elizabethtown, indicates that more than 150 children are now on the waiting list.

Because of the nature of the ailments, hospitalization of patients necessarily covers a longer period than for ordinary ailments. That the present facilities of the hospital are therefore inadequate to meet the demand is plain to understand.

The work being done at this hospital is marvelous and spectacular as well.

**This Little Lady Will Soon Be 100 Per Cent Normal—Thanks to the Wonder-Work at the Hospital**

NECESSITY OF ACCURATE CONTAGIOUS DISEASE REPORTING—Dr. J. Moore Campbell, chief of the communicable disease bureau, has advised all those connected with reporting contagious disease to apply a maximum carefulness and accuracy.

"Complete reporting means complete control," says Doctor Campbell. "Only reported cases are quarantined. It is the duty of teachers, parents, doctors and all others to report known cases of known disease.

"Out of 500 cases of measles there will be one fatality. Out of 4,000 cases of chicken-pox there will be one death. There will also be one fatality for every 6,000 cases of measles. In typhoid fever one out of 12 will die. In scarlet fever one death to each 100 cases is the average. Whooping cough records one fatality to each 150 cases. Diphtheria shows one death to each 18 to 20 cases reported. While meningitis and the dread infantile paralysis will average about one death in each seven cases."

It would seem that any figures in a particular locality which markedly vary from the above average can indicate only one thing, namely, that reporting is not being made of all cases. Naturally no report means a minimum control, if any. And minimum control can and frequently does result in prolonged illness and an excessive death rate from the particular disease involved. More cooperation therefore appears to be necessary on the part of all persons involved in this most important bookkeeping phase of public health control.

ANNUAL COUNTY FAIR INSPECTION—Personnel of the restaurant hygiene section of the Department were busy from the last week in August until the middle of October in checking up on the eating and drinking stands connected with the many county fairs held in Pennsylvania during the autumn months. Constant vigilance plus the accumulated education over a period of years have combined to make the food and potables offered for sale at county fairs as free from dust and dirt and the likelihood of spreading disease as is officially possible. There is every indication that a mighty good job has been done.

**Not An Uncommon Sight This Fall**

THE DROUGHT—Because of the unusually dry conditions in the early autumn, the engineering bureau was intensely active in typhoid preventive measures. These included the examination of many sources of rural water supply, the testing of auxiliary sources and a continuous sanitary survey of streams from which water was taken for drinking purposes.

While the typhoid fever rate increased somewhat, it is gratifying to note that no widespread incidence of this malady was noted in the rural sections—the areas most likely to be affected because of unprotected supplies. Thus is the Department of Health ever on the alert to protect its citizens against the insidious disease hazards.

CHILD AUTO TOLL—Reports recently released from the State Highway Department indicate a pathetic toll of fatalities of children less than fifteen years of age due to motor vehicles.

It seems too bad that with the State Health Department and the local health departments bending every effort to protect child life against disease, for so many of them these efforts come to naught because of the crushing ruthlessness of the automobile.

Of course, it is impossible for adults to accompany children at all times when on the highways or streets. And carelessness, as well as impetuousness, are very natural youthful traits. Nevertheless, it is believed that more emphasis on the part of parents as to the danger of the automobile and repeated instruction to children relative to their conduct when on public highways may have some deterrent benefit.

Incidentally, the stop-look-and-listen principle could be applied to great advantage by many adult pedestrians. Almost fifty-two thousand avoidable deaths annually from the motor car is a terrific price to pay for carelessness. Think it over!

BEWARE OF "THRILL" PACKAGES—According to Harold V. Smith, director of the narcotic bureau, a nefarious campaign is being carried on to secure young drug addicts by means of the surreptitious and free distribution of heroin.

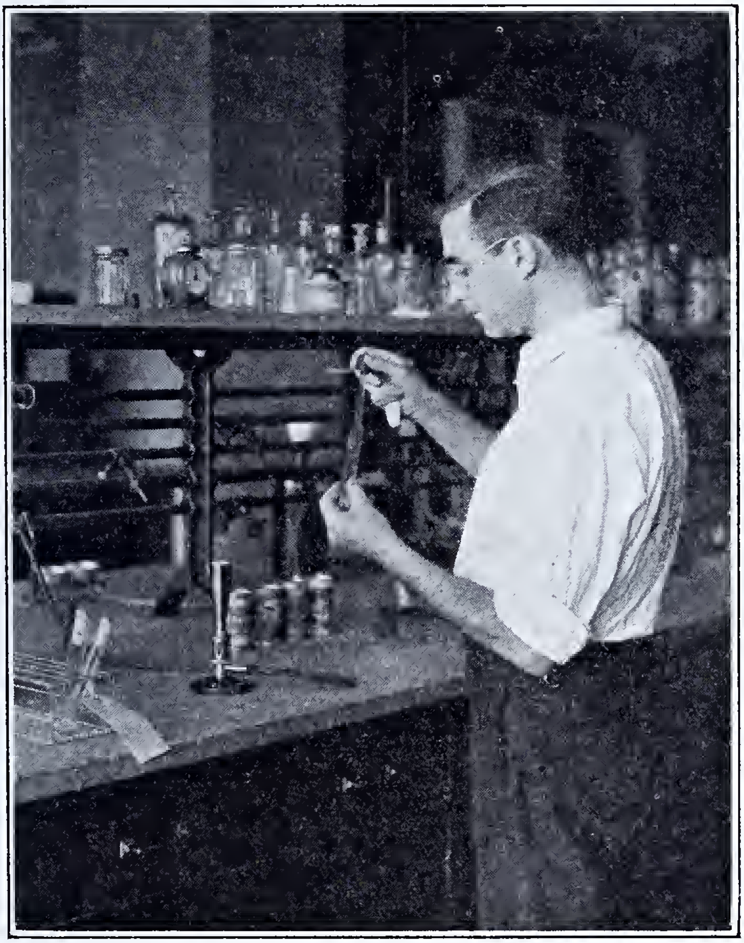
"Many pathetic instances are among the records of the bureau," says the director, "which definitely prove that the traffickers in drugs go to any limit to develop a market for their wares. That many young dope fiends are employed to pass out "thrill" packages to the unsuspecting, and thus fill the ranks of the living dead, there can be no question. It is difficult to control a situation of this kind. The most efficient weapon is education."

It thus seems that parents, teachers and the medical profession, as well as public health officials, have a very real obligation to perform in emphasizing upon the young of Pennsylvania the potential horror involved in accepting any drugs or "thrill" doses from strangers, or indeed even from friends. Narcotic addiction is man's most terrible enemy. Not to sophisticate the child as to its dangers is to be almost criminally liable for any results of addiction which can be directly traced to ignorance.

THE STATE LABORATORY—As an aid to diagnosing many forms of disease, the laboratory is depended upon more and more by the scientific medical practitioner. To assist physicians in the state, the laboratories in charge of Dr. John L. Laird, located at the University of Pennsylvania, Philadelphia, have been functioning for many years.

An average of 10,000 specimens per month reach the State Laboratories from the medical fraternity throughout the Commonwealth, and reports are promptly made to the forwarding physician. Guess work thus yields to scientific knowledge and very definitely aids physicians—to whom laboratory facilities are not immediately available—in reaching a proper diagnosis of the difficult case.

The tremendous amount of health conservation and life-saving involved in this service can only be imagined. It is one of the excellent and non-spectacular weapons which is so beneficially wielded for the health and life of Pennsylvania's people.



**Testing for Typhoid Fever**

VENEREAL DISEASE CLINICS—During a recent thirty-day period in 294 clinics established in Pennsylvania, more than 6,000 patients appeared, 1463 of whom came for treatment for the first time. These clinic centers are conducted solely for those who are financially unable to pay for their own treatment.

Syphilis and gonorrhea are diseases which take a terrible toll. Not only among those who suffer from moral lapses, but from the innocent as well. These maladies are no respecters of persons. Combined, they probably create more human misery than any other maladies known to the human race.

It is too bad that improper conduct in the first instance, and lack of proper treatment in the second, are the two outstanding factors for its pathetic prevalence throughout the United States.

The State Health Department through its clinical service to the indigent, and the medical practitioner through his service to those able to pay for treatment, are both doing all they can to curb this menace.

Too many unthinking or unknowing citizens, however, are apparently failing in the proper type of cooperation. Prevention, except for the innocently infected, is purely a personal proposition. Prompt cure comes under the same heading.

CANCER CONTEST—Nurses in public health work should not forget the Cancer Essay Contest which closes on December 1st. The subject this year is "The Function of the Public Health Nurse in Cancer Control." To the writer of the best essay on this subject a prize of $50.00 will be given. For details, write to Dr. J. M. Wainwright, Chairman, Cancer Commission, 609 Medical Arts Building, Scranton, Pa.

From preliminary reports received at the office of Doctor Wainwright, it can be stated that a large number of nurses have already become candidates for the prize.

DRUGGISTS, TAKE NOTICE!—There are over 4,300 registered drug stores and pharmacies in Pennsylvania. As authorized by section 16, of the Pennsylvania Anti-Narcotic Act, all druggists are required to make a monthly report to the Pennsylvania Bureau of Narcotic Drug Control of all prescriptions carrying narcotics in excess of the legal exemptions.

To facilitate this cooperative and helpful enforcement work, special blanks, Form 931, have been prepared by the bureau, and may be obtained upon application.

In addition to the name and address of the druggist reporting, together with the date, these reports must also contain the name of the patient prescribed for, name and profession of person prescribing, date, disease, and the name and amount of narcotic drug called for. These reports are confidential, except when prosecutions become necessary.

While no doubt realizing what a tremendous task it is accurately to check such a great number of monthly reports, druggists sometimes add to the difficulty by being lax in forwarding their reports promptly. This failure to submit reports is not only a violation of the statute, but it also disqualifies the druggist from being registered to deal in narcotics as required by the Harrison Act. Even though registered, the same may be cancelled upon violation of the state law, and complaint by the bureau of narcotic drug control.

For their own protection, as well as to assist in the enforcement of the anti-narcotic act, all druggists are urged to forward their narcotic reports as soon as possible after the first of the month.

It is with deep regret that the Department announces the death of John G. Ziegler, supervisor of school sanitation in the bureau of child health.

Mr. Ziegler underwent a major operation and three days later suddenly succumbed.

His work with the Department began nineteen years ago when he assumed his duties as chief clerk of the medical school inspection bureau.

Mr. Ziegler was known for his intelligent and conscientious work. It is not too much to say that the present standard of school sanitation in Pennsylvania and many of the combined modern township schools can be traced to his untiring zeal and kindly inspiration.

The Department has sustained a severe loss of a most efficient servant and lovable personality.

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Word was recently received regarding the death of Mrs. B. Franklin Royer, wife of Dr. B. Franklin Royer, former acting Secretary of the Pennsylvania State Department of Health.

Mrs. Jessie Ross Royer came from a long distinguished Revolutionary ancestry. Mrs. Royer was a nurse by profession, and from 1910 to 1917 was on the nursing staff of the Pennsylvania Department of Health. She was also first assistant to the director of the Department's division of child hygiene from 1918 to 1919. In 1920, she became chief nurse of the Massachusetts-Halifax Health Commission. She was also assistant director and lecturer, course in public health nursing, Dalhousie University, Halifax, Nova Scotia, 1920–1923. In July 19, 1923, she married Doctor Royer.

The Department's sincere sympathy is expressed to Doctor Royer in his great loss.

# Vital Statistics Comment

## TUBERCULOSIS

**Florence Hardy**

*Assistant Statistician*

THE 1931 tuberculosis death rate of 58.3 per 100,000 population was the lowest ever experienced in Pennsylvania. This rate marks the minimum reached during the past twenty-six years of registration. Since 1906 there have been 236,438 deaths from tuberculosis recorded in this state, and of that number over one-half were persons between the ages of 20 and 45 years. If the 1906 death rate had existed in 1931, there would have been 14,712 deaths registered last year instead of the 5,680 which actually occurred—a saving of 9,032 lives.

This highly gratifying reduction has been due to several factors. Primarily, health conditions in general have improved considerably in the last quarter of a century. There has been a marked advancement in the sanitation of the home which includes proper housing, regulation of water, milk and foodstuffs and adequate disposal facilities. Furthermore, the same is true to a certain extent of industry. Employers, acknowledging that the healthy worker is the most productive, have, in many cases, reduced the health hazards in their mills and factories to the minimum.

Secondly, in addition to better general health conditions, Pennsylvania as well as the entire country has witnessed a remarkable contest between tuberculosis on the one hand and public health on the opposing side. The struggle has been long and is by no means ended. At the present time this disease is still the leading cause of death in the most prolific years of life. However, the results of years of effort and the expenditure of inestimable sums are readily apparent in the downward trend of the tuberculosis death rate. The state, together with public agencies and the private practitioner, have aided the patient in both diagnosing his case and in effecting a cure.

Another reason for the reduction in the mortality of tuberculosis has been the preventive measures which have safeguarded countless thousands of persons and in particular, children and adolescents, from contracting this malady. Routine physical examinations have done much to lower the morbidity of the disease. In former years the child who was threatened with tuberculosis had very little hope of escaping it, while today's younger generation, with the aid of modern science, stands a good chance of resisting the infection.

Certainly, in studying the decline of tuberculosis in this country, some recognition must be given the public itself. The average man and woman is better informed concerning this disease than perhaps any other. By intelligent publicity they have been educated in its symptoms and its treatment. Through their contributions, all classes of people have had a common interest in the eventual conquest of tuberculosis.

In twenty-six years this disease has been relegated from the first to the sixth leading cause of death in Pennsylvania. To what extent the economic depression will influence the incidence of tuberculosis remains to be seen. Undoubtedly, a curtailment in a community's health budget will retard the progress being made in tuberculosis control.

The following table presents the 1931 tuberculosis death rates in the larger cities of this State as compared with those recorded in 1910:

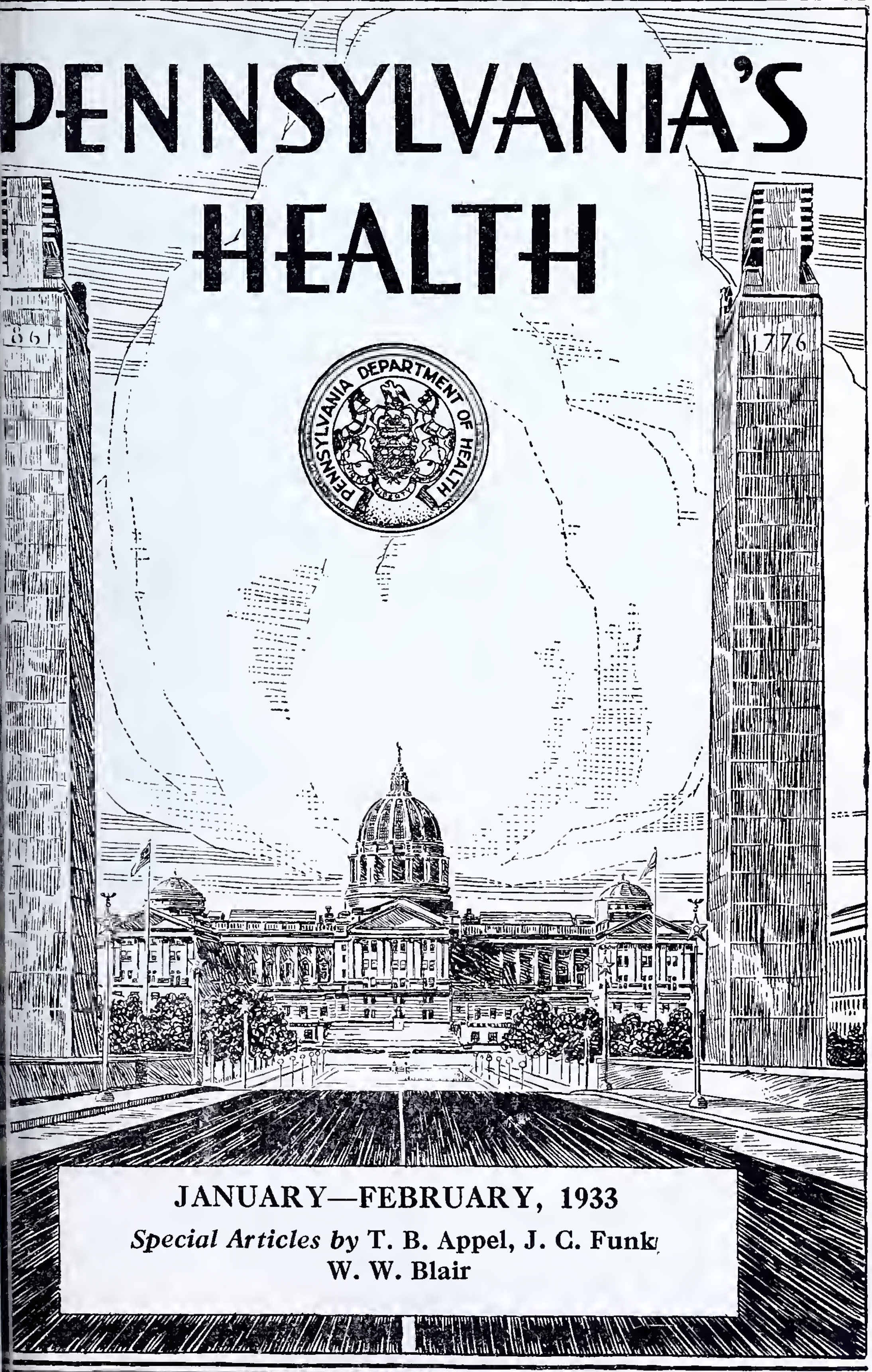
## TUBERCULOSIS DEATH RATES IN PENNSYLVANIA CITIES: 1910 AND 1931

| *City* | *Tuberculosis Death Rates Per 100,000 Population* | |
|---|---|---|
| | *1910* | *1931* |
| Allentown | 143.7 | 49.5 |
| Altoona | 74.5 | 67.3 |
| Bethlehem | 97.0 | 51.0 |
| Chester | 196.7 | 59.0 |
| Easton | 153.9 | 43.4 |
| Erie | 136.2 | 38.7 |
| Harrisburg | 138.1 | 43.3 |
| Hazleton | 117.6 | 32.2 |
| Johnstown | 128.8 | 44.8 |
| Lancaster | 116.2 | 32.9 |
| Lebanon | 93.4 | 81.8 |
| McKeesport | 126.0 | 27.0 |
| Nanticoke | 47.3 | 60.5 |
| New Castle | 101.5 | 36.6 |
| Norristown | 264.4 | 38.6 |
| Philadelphia | 216.9 | 79.9 |
| Pittsburgh | 129.8 | 63.6 |
| Reading | 122.3 | 51.1 |
| Scranton | 105.1 | 65.2 |
| Sharon | 117.2 | 56.8 |
| Wilkes-Barre | 86.1 | 53.3 |
| Wilkinsburg | 131.2 | 26.4 |
| Williamsport | 97.1 | 29.9 |
| York | 197.9 | 28.5 |

*Note:* The 1931 rates exclude tuberculosis deaths which occurred in state-owned institutions located in the above cities.

# PENNSYLVANIA'S HEALTH

PENNSYLVANIA DEPARTMENT OF HEALTH



**JANUARY—FEBRUARY, 1933**

*Special Articles by* **T. B. Appel, J. C. Funk, W. W. Blair**

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# PENNSYLVANIA DEPARTMENT OF HEALTH

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# Pennsylvania's Health

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J. CLARENCE FUNK, Sc. D., Editor

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# Editorial

## THE FOUNDATION OF FOUNDATIONS

IN the animal kingdom the inexorable rule of the survival of the fittest applies. Any philosophy of life which fails to appreciate the significance of this law in connection with human existence is a hazardous and foolish one indeed.

Fortunately, this unyielding mandate of the jungle is not recognized in its extreme application among civilized beings, as witness charity and other evidences of the brotherhood spirit; yet it is emphasized, as it always will be, in the physical aspects of every individual.

Most so-called successful men and women are under the influence of a personally constructed and applied logic. To them, certain goals are considered worthy of achievement; and the sacrifices necessary to attain them are ungrudgingly made. In fact, consciously or otherwise, the vast majority of persons direct their daily actions on their own particular theory of the greatest personal good.

Quite irrespective of the merits or demerits of the individual human program, is the unshakeable fact that protective factors designed to favor its completion usually overlook the greatest protection of all, namely, physical fitness.

It is pathetic, for example, to note the meteoric career of a young captain of industry, protected as he was by his superior administrative brains and tremendous energy; and realize that the master mind was forgetful that its continued power rested in the condition of the body that housed it. Philosophy, in this instance, unfortunately stopped at the neck. Why otherwise did he overwork, undersleep? Why did he fail to indulge in necessary exercise and be guilty of many senseless excesses? His tombstone and the friendly eulogies, we fancy, mean little to him, and not much more to the sorrowing young family left behind.

Any system of conduct that thus refuses to recognize the cardinal fact that living is a primary function of life, is a woefully false one—a will'o'the wisp leading to premature destruction.

And any combination of personal habits which denies the supremacy of health represents a system which loses much of the point of human existence. Truly, health is the foundation of foundations. Mark well, then, your philosophy of life to determine whether or not it is rooted in solid ground.

*J. C. F.*

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# COOPERATION IN DISEASE PREVENTION*

**Theodore B. Appel, M. D.**

*Secretary of Health*

THERE are certain homely and trite aphorisms which may well serve as texts for any address explaining the aims and purposes of such a Health Day as we proposed for Pennsylvania this year. For example, the health of the people is the strength of the nation, and the children are its hopes for the future. An ounce of prevention is worth a pound of cure. The best way to insure health is to prevent disease. In addition, President Hoover on repeated occasions has stated his opinion that the health of the people of this country was as important a factor in its life and prosperity as their education, and should receive equal attention and support. So the keynote, this year, has been prevention.

In considering the general type and character of the public meetings which have been held, the idea of the prevention of disease naturally was most prominent. We have endeavored, wherever possible, to emphasize the necessity of applying the rules of disease prevention, particularly to children, in view of the generally accepted fact that as a rule the strength of the man depends on the strength of the child, and that the seeds of most of the diseases that affect humanity in adult life are sown in childhood.

Much progress has been made in the last 25 years in this direction. The expectancy of life of the new born child has been increased from 48 years in 1906 to 53 years in 1919 and 58 years in 1931. But that simply means that more children are growing to adult life and that these children reach maturity in sounder health and with fewer handicaps; it means the gradual postponement of the natural degeneration which must follow the wear and tear of life. For this reason we are paying particular attention in our school examination to the child who has some physical defect. We are carrying this work to the preschool children as well.

For this reason also in this present period we are particularly alarmed on account of the increased malnutrition and undernourishment reported almost universally from all sections of the State. The fall examinations indicate an increase of at least 28 per cent over the undernourishment found one year ago. In our estimate of the number of indigent undernourished children in the State, for whom some of the money allocated to Pennsylvania from the Federal Relief Board has been devoted for the purchase of milk, we find between 400,000 and 500,000 children in that class. Naturally this condition has in it a great element of danger, not only the danger from the invasion at present of epidemic diseases but also, if this undernourishment continues, there will be a definite lowering of vital resistance for years to come. We feel, therefore, that this first Pennsylvania State Health Day should be but the opening gun of a campaign to be carried through the year in order to conserve by all possible means the vital forces of our population.

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*Pennsylvania Health Day Address, Towanda, Pa.

## Preventive Medicine Defined

The field of preventive medicine is a broad one, much broader than is generally recognized. It involves not only putting to practical use the wonderful discoveries as to the causation and prevention of certain diseases which have marked the last half century, but covers also certain other conditions which have an indirect influence on general health. It must be recognized that three factors have to do with impaired health or actual disease. First, including the great group of contagious or infectious diseases, the presence, introduction into the body and growth there of a causal agent, usually a bacterium, or of a constant irritant the result of defective function. Second, the varying amount of vital resistance or immunity the individual may have to disease by birth and growth; and third, the presence or absence of external conditions which might lessen that existing vital resistance. So that preventive medicine not only deals with the known methods by which we can create or increase natural immunity as for instance, the use of vaccine against smallpox or of toxin antitoxin against diphtheria, but also covers the fields of sanitary engineering, environmental hygiene, the proper use of proper foods, and personal habits of living.

In a sense we know a great deal about prevention; actually in the aggregate our knowledge is insignificant in comparison with the problems that confront us. Moreover, much of our knowledge is not yet generally applied by the people. It is true that by our system of universal vaccination we have practically banished smallpox from our jurisdiction and that in the last ten years no local cases or epidemics have occurred within our borders that were not imported from our less fortunate neighboring States, unprotected as they are.

It is true that the introduction of the use of antitoxin in the treatment of diphtheria has steadily reduced the mortality rate of that disease, and following the campaign for the general use of toxin antitoxin or toxoid as a preventive measure, the number of cases which had steadily been increasing have so rapidly decreased that, viewing our records, we can certainly say that diphtheria has been controlled and can almost claim that it has been abolished. These are triumphs of prevention by directly creating or increasing the vital resistance or immunity of the individual. It is a long cry from 2,438 deaths from diphtheria in 1906 to 364 deaths in 1931.

It is true that within the same period typhoid has disappeared as an urban disease and only lurks in rural districts. We had 3,917 deaths from typhoid in 1906 and 205 in 1931. That is a triumph for sanitary engineering in the care of our water supplies and sewage disposal.

It is true that through better knowledge of tuberculosis the prevalence of the great white plague has been markedly reduced, chiefly through the advances in environmental and personal hygiene. Tuberculosis claimed 10,780 victims in 1906 and 5,680 last year.

And it is also true that the mothers of today no longer need fear the fatal second summer for their babies, for with proper milk and clean water and better feeding customs the mortality from diseases of the intestines in early childhood has been reduced from 11,081 deaths to 1,734.

## Economic Conditions—A Real Hazard

Much has been accomplished by the practical application of our knowledge of prevention, but in this year of 1932 there are certain ominous portents due to the results of the economic conditions which cannot be overlooked.

It is true that the years 1930 and 1931 have in Pennsylvania established new low records in both the prevalence and mortality of disease. However, we cannot delude ourselves with a feeling of false security that with widespread malnutrition such rosy conditions will continue. We know only too well that the results of such lowering of vital resistance do not make themselves apparent in vital statistics records immediately.

The death rate of the State for 1930 was 11.6 with 111,606 deaths—the lowest on record. In 1931, there were 400 more deaths, and there will be an increase this year.

Last year, the birth rate was 18.3, with fewer babies born in Pennsylvania than any year in the last twenty-five—10,000 under 1930.

We had low rates in typhoid in both 1930 and 1931, but this year there is a definite increase; and what is more to the point the case mortality has also definitely increased, directly attributable to lowered individual resistance.

The same thing applies to diphtheria, where in '31 we had low records in both cases and deaths, 4,545 and 364. In the first six months of this year there was a proportionate increase of 30.6 per cent in deaths and 10.8 per cent in cases over the same months of last year, again indicating a lowered vital resistance and also the result of the slowing up of the campaign of prevention by the use of toxin antitoxin directly due to lessened financial resources for the distribution of the necessary biological supplies.

Our records show nearly double the cases of, and deaths from, measles, scarlet fever and whooping cough over the 1930 record.

In tuberculosis, where the reporting of cases is admittedly poor, there has also been an increase out of proportion to any improvement in reporting.

These, I think, are ominous portents that should demand the attention of all those interested in public health. They should cause renewed efforts and closer cooperation.

These points cover diseases and conditions where we have been making wonderful progress in the past. But there are other conditions yet unsolved where preventable deaths occur daily. The risk of maternity is still too great, the perils of the new born child too many. The common infectious diseases of childhood have not yielded sufficiently to quarantine and leave in their wake sequelae certain to exact a baneful influence in later life. The so-called degenerative diseases of middle life, apoplexy, heart disease, kidney disease, hardened arteries, take their toll too early. Cancer and diabetes are steadily increasing, and epidemics of influenza, of infantile paralysis and the like occur periodically and without control.

## What Medicine and Science Has to Offer

What can we do about it? Has scientific preventive medicine nothing to offer? Yes, a great deal, though perhaps indirectly; and perhaps this is the most important of our Health Day educational program. You have all heard of the American Child's Birthright from the White House Conference. Indeed, every American child should have the right to be born safely and in good health and should be provided with proper surroundings and care to allow him to grow healthily during those years when he cannot care for himself. This we cannot insure him at present, with between 400,000 and 500,000 undernourished children in our midst.

But there is another right equally important, namely, that of the expectant mother. She should have the right to have all safeguards placed about her and all preventable risks removed when performing a perfectly normal function. There is no excuse for the 1,200 to 1,500 maternal deaths annually in Pennsylvania for the last twenty-five years. Practically no consistent improvement has been made in this record. And we know that probably one-half the deaths and invalidism due to childbirth could be prevented by proper prenatal care. Every American mother should receive that care.

We believe that a definite factor in the early development of the degenerative diseases of middle life lies in the repeated minor infections of childhood and the improper kind of nourishment the child receives. In other words, too many children reach manhood or womanhood definitely handicapped and unfit to stand the wear and tear of life. Later, improper diet, excesses of all kinds, irregular habits of life, overwork, self-indulgence, high nervous tension and a hundred other offenses against nature come in the picture to increase the perils.

## A School Survey

We have known that many cases of heart disease have their incipiency in the early years; proper care can do much to reduce their seriousness. And the same applies to tuberculosis. The seeds are usually laid in childhood, lie dormant until early manhood, and then they are ready to break out whenever the vital resistance is lowered.

Recently we had an experience which gave us food for serious thought. A routine survey was made in one of our high schools where there was a comprehensive athletic program. All the children were tested for the skin reaction to tuberculosis and the active reactors were thoroughly examined both physically and by the x-ray. An undue proportion of early active cases were found among the senior athletes, particularly the track team. The reasoning was very simple. These boys, with an unexpected dormant infection, with the ardor of youth, entered into a severe course of training, and expended their strength in competitive contests during a period of their lives when a large amount of reserve energy was being called upon for normal growth. They burned themselves out and allowed the dormant infection to flare up. Understand, I believe fully in proper athletic training but, like all good things, when carried to an excess it can be very harmful. During the growing period of our youths proper supervision is most necessary.

## The Slenderizing Bogey

And there is another point in connection with tuberculosis that is well to bear in mind. There has been a steady reduction in the number of deaths in both sexes and in all age groups with the exception of women between 15 and 25. Analysis of our admissions to the sanatoria of girls in this group from their histories show a number of causal factors—contact, over-work, privation, etc. But an unusually large number confessed that by various improper diets they had been endeavoring by reducing to change the bodies the good Lord gave them to conform with the dictates of fashion, or in response to some fantastic idea. Without proper fuel the engine cannot run properly. These girls actually starved themselves and gave tuberculosis its opportunity. While overeating may be a factor in corpulence, there is a certain little gland at the base of the brain which determines growth and governs the physical conditions of the body. And our physiologists have not yet the knowledge to give to the medical man whereby he can control the functions of this gland to the satisfaction of the dissatisfied.

As far as cancer is concerned we have nothing to offer but the demand for opportunity for early diagnosis. In spite of the discovery of insulin, the yearly mortality of diabetes is steadily mounting and that brings out the advice of conservative judgment of any panacea by the public. Insulin has been of immense value, but unfortunately when its discovery was announced the public misunderstood its limitations.

## Beware of Fads

In the same line, advice should be given to distrust all fads, either medical, dietary or otherwise. Such fads are born every minute. In 40 years of medical experience I have seen many come and go, some leaving a modicum of scientific truth to enrich our knowledge, others to be entirely forgotten. The importance of new discoveries must not be exaggerated until by actual experience the real value can be accepted. Thirty years ago we put our fever patients indiscriminately into tubs of ice water, but our typhoid cases still died. We no longer tub them, but in properly selected cases use cold sponging. We no longer see our neighbor at a banquet surreptitiously consult a little card to determine how often he should chew a piece of steak, or how long he should masticate a potato. But Fletcher undoubtedly improved our habits of eating.

We no longer hear as much of the popular estimations of the number of calories to be included in our daily menus. While they are important in special cases, for the average individual a balanced diet is the thing. Vitamines are ceasing to be a fad as their real scientific value and use are better appreciated.

Too much advantage has been taken of the scientific value of calories and vitamines in diet in the exploitation of certain foods and diets to the detriment of the public. Their significance can be learned only by expert advice. It must be remembered that the proper diet for the individual depends greatly on his occupation and his habits of life, and that a combination of foods that is proper for one individual will not answer for another.

## Quacks and Charlatans

Of course, we still have and always will have with us quacks and charlatans—miracle men and pow-wow devotees, who will cure every ill under the sun or money refunded. With the help of their advertisements and faked testimonials, they will continue to receive contributions from the credulous. But the education of the public will prevent many disappointments.

In a larger sense, our campaign to be carried on by these Health Days should tend to develop not only an individual but also a social or municipal conscience. No municipality in these days should for a moment consider permitting its people to be served with water or milk or food not properly protected from contamination, nor should it be willing for its sewage to be discharged into the surface or underground waters to the detriment of its neighbors. These are definite civic health questions.

In a city in western Pennsylvania some months ago the water supply was cut off from a number of houses in a certain section due to the nonpayment of water rent. These houses were inhabited chiefly by negroes. When the water supply was cut off, they opened an old spring which had been condemned and closed on account of pollution. In due time typhoid broke out and some 40 cases were cared for in the municipal hospital. It is a question as to whether the care of these indigent patients did not cost the municipality more than the water rent would have amounted to.

Some six weeks ago, when money from Federal funds became available in Pennsylvania, the State Emergency Relief Board allocated $100,000 for the purpose of providing milk to the indigent undernourished children of the State for the month of October. For a year previous, the Department of Health from private funds through some eight milk stations had been furnishing milk to some 2,000 undernourished children. Incidentally, the gross gain in weight for these children during the year was something over six tons. The money allocated by the Commonwealth for milk was intended to extend this program throughout its area, supplementing existing agencies. In each county an organization has been completed by which we hope to reach as many of these children as possible. We believe that under present conditions this effort to counteract malnutrition is the best kind of preventive medicine.

It seems particularly important in this period of economic depression that a strong cooperative movement be inaugurated to protect the public health. Municipal and State appropriations will necessarily be cut during the coming winter owing to loss of income. The treasuries of our welfare organizations are empty; and while money is coming to the counties both from State and Nation, there will not be enough fully to meet the needs of the unemployed.

While the health record for the last two years has been most favorable, we cannot rest in a false sense of security. The results of malnutrition, improper housing, inadequate clothing, insufficient recreation, unhealthy mental and emotional life, are not reflected immediately in health records, but these conditions unquestionably existing today are causing a definite lowering of vitality rendering the people ready prey to epidemics. An epidemic of influenza would be a national disaster. Already there is apparent a demonstrable increase in mental disorders and in cases of tuberculosis.

In order to cope with these abnormal conditions, absolute cooperation between all health and welfare agencies and the public is necessary. With our relief measures we must do what we can to mitigate the suffering of the helpless. And to bring about the best results, the educational success of Pennsylvania's first Health Day should be a definite factor.

◆

# The Health Gnome Says—

A man of fifty, wise and bold,
Amassed outstanding wealth;
But his business so occupied his brain
That he gave no thought to health.

True, he out-smarted many other chaps,
And by working day and night,
Achieved the stratosphere
On his financial flight.

But what this wizard quite forgot,
In all his golden aviating;
Was that nature and her rigid rules
Also demand much baiting.

And so it sadly came to pass,
That his health one day gave way;
And he left his fortune and his friends
For an eternal stay.

The moral is plain, I really think,
To this sad tale of woe—
One can't slap old nature in the face
And make of life a "go."

Keep this in mind in thirty-three;
Make a serious resolution
To give the body its just due,
And achieve life's real solution.

*J. C. F.*

# HOCUS-POCUS*

**J. Clarence Funk, Sc. D.**
*Director, Bureau of Public Health Education*

A LARGE tent, a first-class show and a most persuasive gentleman represent the background for the dispensing of a miracle compound the efficacy of which, judging by the eloquent claims made for it, is really no less than astounding. The audience is lulled into a purchasing mood by the hypnotic voice of the "patent medicine" faker, 100 bottles of his omnipotent concoction are quickly exchanged for as many dollars —and the day's business is done. Thus, playing the South in winter and the North in summer, this clever man, in spite of the keen competition of the talkies and the automobile, manages to extract a fat sum of money each year from thousands of pockets because of the childlike faith and gullibility of the average man or woman who is ill or half-ill, or who imagines for no good reason at all that normal health is not being enjoyed.

The situation would perhaps be amusing but for the lamentable fact that a proportion of the victims so cling to the statements alluringly made and as persuasively, though inferentially, published on the bottle's label, that they needlessly suffer or die in consequence. Therein lies the pity of it. As a matter of fact, that is the pity of all this amazing hocus-pocus which, with glib tongues, glamorous promises and glittering labels, imposes itself on the confidence of suffering humanity. Delayed cures, or what is more unfortunate, premature funerals in thousands of cases inevitably result.

Such consequences, however, do not disturb the sublime tranquillity of the "professors," who immodestly admit that through their wonderful discovery they have outstripped the scientific and hard-working research men backed by the millions of the philanthropists.

Now, the peculiar thing is that the modern faker is little changed either in method or in manner from his forerunner of a hundred years ago. While incantations, amulets and charms have been discarded, practically all the rest of it survives.

The onward rush of scientific achievement in medicine, chemistry, bacteriology, sanitation and disease prevention in no wise dampens the brazen effrontery of this seductive gentry. To them the significant fact remains that some of the then incurable and stubborn diseases are as yet in these classes; and, inasmuch as hundreds of thousands of people suffer from them or imagine that they do so, the harvest remains as ripe for plucking as in the days of yore, with the added advantages that accrue from increased population, easy communication and richer purses.

However, the "vacant lot" artist after all represents but a small minority of that tremendous horde of unethical gentlemen who prey on the public. Men who can successfully play on mass psychology require the characteristics of actual ability, vigorous boldness and unique personality; and comparatively few possess them.

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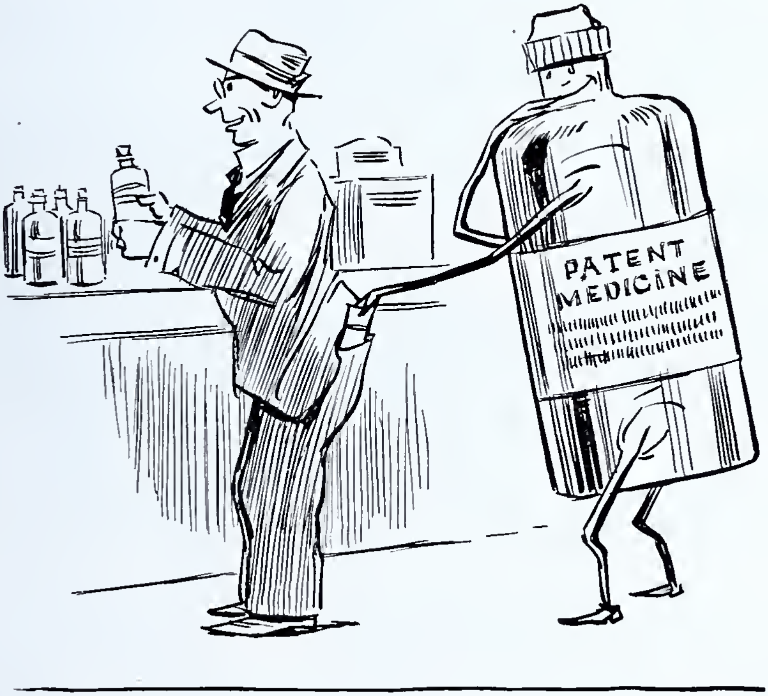
*This article originally appeared in *Hygiea*, and is reprinted with the consent of the publisher, The American Medical Association.

To this group, however, belong certain food faddists who visit towns, advertise free lectures and make their appeal to that class of persons who are sufficiently educated to think they are quite above the average in mentality and therefore imagine that they are capable of understanding matters beyond the level of the ordinary person. With brilliant tongue, handsome face and an accomplished stage manner, these "nutrition experts" sell themselves at two open meetings and "sell" hundreds of persons to the tune of $10 each for the remaining and "essential" talks. The net result is that the unmistakably clever fellows enrich themselves and develop an additional market for their "priceless health foods." Moreover, they have filled the unreasoning heads of their converts with half-true theories which, to say the least, are frequently dangerous.

**Take Your Pains to Recognized Professional Men—Avoid Quacks and Charlatans**

A less bold and talented group is represented by the breed that hides behind advertisements and stage settings. These unscrupulous men who possess a medical degree, honestly or dishonestly obtained, occupy elaborately furnished offices in the downtown section. Appropriately planted behind a large desk and surrounded with appliances, mainly electrical, they make a calamitous diagnosis, the while peeping over their shell-rimmed glasses and sticking their thumbs in the armpits of their spotlessly white coats.

One is informed that though the examination, as advertised, is absolutely free, the cure is quite otherwise. Cancer, heart conditions, Bright's disease, syphilis and tuberculosis are one and the same to savants of this type. No matter how advanced the case, indeed if there is no case, a series of treatments is all that is necessary, and the cost is but $500 on the instalment plan. One will then be entirely well again. It is as simple as all that!



**Money-Loss Is Not the Only Hazard of Self-Diagnosis and Self-Treatment**

And speaking of examinations, a significant feature attaches to them in offices of this character. One may have received a clean bill of health ten minutes previously from an expert physician, yet the x-ray vision of these sublimated pseudo-scientists will promptly discover a terrible ailment which is speedily carrying one to an untimely grave. In this manner, thousands of Americans who are quite well or nearly so, but for their thinking otherwise, through diabolic suggestion are thus made altogether miserable. Suicide in this connection is sometimes the immediate result of the falsehoods thus expressed for the purpose of gouging money out of the victims. Again, through these unethical practitioners, many others, still in the curable stages of a disease, owing to delayed treatment meekly lay down their lives in a pitiable attempt to save them.

The third act of this drama of credulity shifts once again. Gone are the footlights. Even the seduction of a stage set is entirely lacking. A small group of men sit around a table. Having purchased a formula for a few hundred dollars, they are developing a national campaign for a great restorative. The cost of this newspaper offensive will run into hundreds of thousands of dollars. It is quickly subscribed. And in this way a new boon to suffering humanity is launched on a waiting world.

The new discovery possesses colossal power. It is actually amazing in its adaptability to widely divergent conditions. So it comes to pass that a million dollars are taken out of the pockets of as many United States citizens and placed in the accounts of the few shrewd business men whose cheaply acquired formula contains but little that could in curative effect even remotely approach the claims made for it. Once more, the dollar bill and the all-trusting faith of ailing human beings have generated a misplaced confidence, with incurable diseases and deaths resulting by the thousands.

To all this humbug must be added the crimes of the advertising oculists, the "painless" dentists, the beauty surgeons, the "vitality belt" purveyors and the many unscientific cults, whose major interest in patients is to get money out of them, an activity in which they preeminently succeed.

But even this is not the whole story. People by the millions are being educated in the press through so-called health talks and advertisements of the untold advantages to well-being of this and that particular kind of food. In short, through quacks, quack advertising, cults, pathies and food and tobacco exploitations, the American citizen of today is so hammered at on the subject of health that he is likely to develop either a complex or a logical callousness to the whole subject. It can, therefore, be safely said that misapplied and misstated facts on health are a real menace to the American public today.

It must be admitted that the government has accomplished splendid work in driving many frauds to cover. In this fight it has been admirably led by the investigations of the American Medical Association and its Council on Pharmacy and Chemistry. Insurance companies also have consistently spread facts tending to place in their proper light the bunkum back of all this chicanery of healing. Nevertheless, the thing continues to thrive.

It would, therefore, appear that many more Americans must be educated to the outstanding value of the periodic health examination as the really great discoverer of baffling diseases in a stage when curative and corrective measures are still possible. Moreover, they must somehow be trained to rely only on the healing art in its ethical expressions to cure their maladies. Nature cults, autohemic therapy, astral healing, diet fads and all the rest of it, including the alleged cures and testimonials of neurotics, must be thrown on the ash heap, where they rightfully belong.

Certainly, fools we will always have with us, but further to retard the foolishness of such persons, which is now so generally and energetically applied to health fakes and fakers, is a most worthy object indeed. Remarkable, even unbelievable, headway would be made in this campaign if every one would seriously ask himself the question, "Am I a hocus-pocus victim?" Then act accordingly. How about it?

# KERATOMALACIA*

**W. W. Blair, M. D.**
*Professor of Ophthalmology*
*University of Pittsburgh*

ENTERING the fourth winter of the economic crisis, thinking people everywhere are deeply concerned over what is to be the fate of the daily increasing numbers of our working people who will be out of employment during the coming months.

Though the industries in general at the moment do show a tendency toward improvement, we cannot be unmindful of the fact that many ordinarily prosperous and foresighted people have reached the end of their savings, and must soon join their fellows in the need for material assistance.

In spite of the many and varied relief measures now active, it is realized that our country is facing a period which may well be the most trying in its history. With hundreds of thousands of families suffering actual food shortage, it seems inevitable that many cases of disease, dependent upon diet deficiencies shall be met with; in fact, we must expect to encounter disease conditions similar to those which were so prevalent in the European countries during and after the period of the war. The spread of tuberculosis was probably the most serious single problem, particularly as it involved children and adolescents.

Apart from disorders not related to infections there are those dependent upon the faulty and meagre dietary imposed upon large numbers of people during times of famine or economic distress such as we anticipate here and abroad this winter. No less an authority than Professor McCollum, of Johns Hopkins Medical School, has recently made the following observation, "Many and serious as are the problems confronting Europe and America at the present time, none is more important than the appreciation of the science of nutrition in the daily life of the people. . . ."

Amongst diseases not primarily based on infection, but which is definitely a nutritional disturbance, is one in which involvement of the eyes is often the first symptom to attract attention, namely, keratomalacia. This condition developing in undernourished, poorly developed children, usually infants, must be looked for at all times like the present, when a situation appears which is in all particulars comparable to that which prevailed all over Europe during the war years.

In keratomalacia, aside from symptoms common to underfed children, the eyes become congested, the lids swollen, and a small amount of discharge appears; the secretions are altered, but do not in the least resemble that which accompanies ophthalmia neonatorum, though such a mistaken diagnosis has been made. The discharge is thick and ropy in consistence and as it lies in the inferior cul-de-sac, appears frothy, resembling soap-suds.

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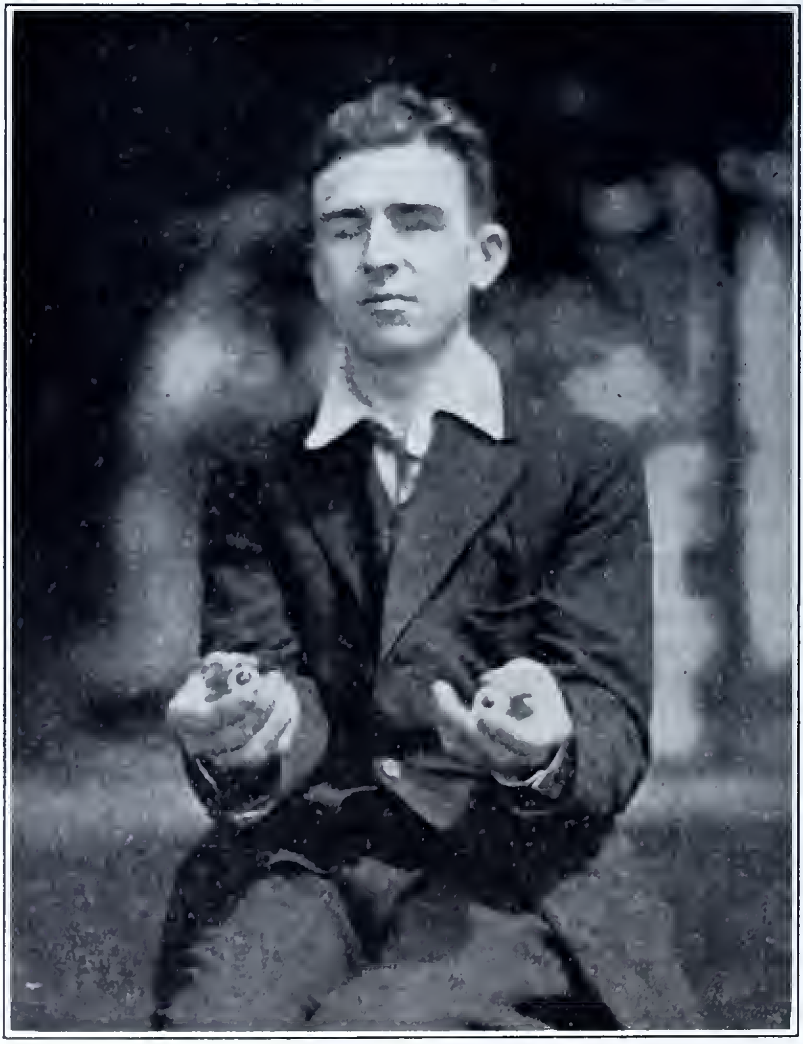
*Article prepared for the Council of the Blind.

The cornea presents a greasy appearance, and after a few days shows an irregular triangular patch extending from the inner or outer canthus on to the clear cornea; this was first described by Bitot and is known as Bitot's spot. The latter is quite characteristic in appearance and looks as though throughout the area covered the tears were turned aside; in other words, as though the area had been greased or waterproofed. This sign is quite characteristic and should be looked for. Shortly after the appearance of Bitot's spots the cornea clouds over very rapidly and then seems to melt away precisely as we have seen this occur in corneal ulceration during the course of an ophthalmia due to Neisserian infection.



This is a Frightful Penalty to Pay for Carelessness

From what has just been said, it will be understood that keratomalacia is frequently manifested by a rapidly destructive involvement of the conjunctiva and cornea, which unless recognized early and treated intelligently, results in complete blindness through perforation of the cornea which may occur in a few days.

Our knowledge of the cause of xerophthalmia, and keratomalacia, and incidentally the successful treatment of these conditions has been greatly enhanced by the work of Olav Blegvad, in Denmark, where the disease was widely prevalent from 1909 to 1920.

Keratomalacia is now known to develop as a result of lack of fat soluble vitamine A in the diet of infants, or that of nursing mothers, or as an intestinal disorder which prevents the digestion and assimilation of vitamine A.

Blegvad's statistics are particularly impressive since he was able to tabulate observations on 434 cases of keratomalacia in children and 13 in adults, by far the greatest number so far collected.

During the war, Denmark exported great quantities of dairy products, including butter, milk and cheese, at the same time substituting for home consumption skimmed milk and animal fats for butter. When the situation was recognized, and corrective measures instituted, namely, the restoration of butter and whole milk to the general dietary, the disease was brought under control.

It seems advisable to call to the attention of all health officials and to the medical and nursing profession at this time the extreme likelihood of the occurrence of keratomalacia in the present condition of food shortage; indeed some cases have already come under observation and it is quite possible that others have gone unrecognized.

It is of utmost importance that an early diagnosis be made in order that treatment may be instituted promptly. The treatment is directed toward supplying of needed vitamine A in abundant quantity; for this purpose in the case of infants, a supply of breast milk from a healthy mother is fed, and in addition cod liver oil and orange juice administered in amount and dosage proper to the age of the patient.

As to local treatment, nothing is required save that the eyes should be kept free of discharge by frequent flushing with warm boric acid solution, and the tendency to drying of the cornea and conjunctiva be combated by the application twice daily of plain vaseline.

That the above simple measures may be expected to produce gratifying results is the testimony of all who have had the opportunity to see them applied.

* * *

## DEPARTMENT NEWS

INFANT MORTALITY—Pennsylvania's infant mortality rate for 1931 has been definitely tabulated at 67 per 1,000 live births. The receipt of the delayed reports places the aggregate deaths of under one year of age at 11,899.

When the Health Department was first established in 1906, a total of 28,000 infants of under one year died. The rate thus has been reduced from 167 to 67 in twenty-five years. Infant deaths, however, in spite of this excellent showing still remain much too high.

MANY ARE TREATED—During a recent thirty-day period more than 12,000 patients were treated at clinics conducted by the Department. The venereal disease clinics treated 7,210; tuberculosis clinics, 4,846; and heart and cancer clinics, 63. To accomplish these results the various centers were open and in operation for 900 separate sessions. In addition, 147 child health center clinics and 7 prenatal clinics were conducted. These served almost 9,000 children and 400 mothers.

These activities represent a tremendous amount of health conservation for those who, because of lack of finances, would otherwise have been deprived of such service.

Well-Baby Centers are Always Popular and Busy

ODD AND UNUSUAL NAMES—An interesting phase of the vital statistics work in Pennsylvania is the appearance of quaint and unusual names that have been given to children and entered on the birth certificates forwarded to Harrisburg. Elmer W. Ehler, assistant chief of the bureau, to whom the reports come in the first instance, the other day indicated several interesting appellations.

For example, in line with the spirit of the times, a couple have named their baby girl, Viola Depression. Taking the prize for length is the name of Anthonie George John Emile Van der Star D———. Here's one from a central county: Mountoursville Tisaquan Y———. And the young lady born on Armistice Day will carry the name of Armistice Mary. Another patriotic cognomen is that of United States Liberty B——

Now, it's your turn!

SANATORIA SERVICE—The three tuberculosis sanatoria, Mont Alto, Cresson and Hamburg, during December had an aggregate number of 2,355 patients. The waiting list at the same time reached nearly 2,000. This appears to indicate that while tuberculosis has been reduced from number one to seventh on the list of killers, it still is a tremendously capable criminal.

**On the Road to Health at Hamburg**

As a matter of fact, complacency regarding tuberculosis is a most illogical type of psychology. Education, the increased standards of living, efficient detection and removal of contacts have done much. Early diagnosis, as a direct result of the patient's personal or family initiative, is the great hurdle yet to be overcome. As is the case with most public health problems of today, much of the additional success in solving them is dependent upon personal cooperation.

HYGIENE INSTITUTE—The local Parent-Teacher Association of Erie recently sponsored a Social Hygiene Institute in which the Erie Social Hygiene Association cooperated in arranging the details.

Dr. Valeria Parker, of the American Social Hygiene Association, New York City, was the lecturer at the sessions. In addition to talking to parents, teachers and broadcasting hygiene talks, Dr. Parker reached the high schools of the city in a series of lectures.

Reports indicate that this Institute was an outstanding success both from the standpoint of interest displayed and information received. Congratulations to the Parent-Teacher Association of Erie for sponsoring it, to the Erie Social Hygiene Association who arranged it, and the American Social Hygiene Association who made possible the capable services of Dr. Parker.

"HASHISH" CIGARETTES—Quiet investigation carried on by the bureau of narcotic drug control reveals the increasing use of the weed known as marihuana for smoking purposes in certain sections of Pennsylvania.

The usual form of this weed for consumption is in cigarettes, and they are designated by the initiated as "reefers" or "muggles." In some places the general distribution seems to be in the hands of a single agent who sends out salesmen to peddle his wares on the streets and in resorts frequented by those who are seeking thrills. At the present time in Pennsylvania the only weapon against this insanity producing weed is education. Parents should instruct children to avoid cigarettes of this character as they would a deadly snake.

BUSY NURSES—Department nurses in a recent month made 16,200 visits to different homes in Pennsylvania. These visits represent a splendidly directed professional energy. For example, no less than 3,200 defects in children were discovered on these visits, the great majority of which have now been corrected. Of these defects, 400 were visional in character, thus eloquently emphasizing the sight conservational efforts which have so materially aided in minimizing the number of potential blind persons of the future.

HONOR FOR THE DEPUTY SECRETARY OF HEALTH—Dr. J. Bruce McCreary, deputy secretary of health, at the last annual meeting of the American Association of School Physicians held in Washington, D. C., was elected president for 1933. This organization is composed of more than 3,000 school physicians in the United States, Canada and Mexico.

PHYSICIANS' AID—Every county in Pennsylvania now has the benefit of expert medical advice in free milk distribution, according to a statement recently made by Dr. Theodore B. Appel, Secretary of Health.

"The services of active, practicing physicians in connection with the distribution of free milk to malnourished children has been tendered and accepted. The chairmen of the respective county medical societies have designated committees to cooperate with the administrative nurse, the county medical director and superintendent of schools in the handling of this situation.

"The physicians advise the nurse from the professional standpoint as to the amount of milk each child may need as well as reporting to her such cases over which the medical practitioners may know that are in need of free milk," said Doctor Appel.

The Secretary of Health has expressed his gratification at the formation of this cooperative plan, and has indicated that he is very appreciative of this additional service in this crisis on the part of the medical fraternity.

PENNSYLVANIA STATE DENTAL SOCIETY MEETING—Announcement has been made that the Pennsylvania State Dental Society will hold its sixty-fifth annual meeting at the Bellevue-Stratford Hotel, Philadelphia, May 2, 3 and 4, 1933. Preliminary reports indicate that arrangements have already been completed for a full program of scientific papers, post-graduate study sections and table demonstrations.

## OBITUARY

It is with great regret that the Department announces the death of John K. Miller, inspector of the restaurant hygiene section.

Mr. Miller had been a semi-invalid for the past eighteen months, though in spite of his condition was able conscientiously to transact office duties in connection with his work.

He came with the Department in March, 1908, as a stream inspector, was transferred in 1917 to the engineering bureau as inspector, and later was assigned to the bureau of housing. When that bureau was eliminated he was transferred to the bureau of communicable diseases as a health officer, and was subsequently permanently assigned to the restaurant hygiene section.

He was known for his quiet, kindly personality and his high regard for duty. An efficient, earnest worker, the Department will miss him.

# Vital Statistics Comment

## MARRIAGES IN PENNSYLVANIA IN 1931

**Florence Hardy**
*Assistant Statistician*

THE marriage rate in Pennsylvania in 1931 of 12.4 persons married per 1,000 population was the lowest ever recorded in the State's history of registration. With the exception of 1906, 1908 and 1909, the number of marriages performed in 1931 was lower than in any preceding year. The total of 60,160 marks a 7.1 per cent reduction from the 1930 figure. Since 1923, there has been a gradual decrease in the marriages recorded in this State. Present economic conditions have influenced to a considerable extent the lowering marriage rate. This factor in turn has resulted in a further reduction in the birth rate.

In 1931, of the 60,160 brides in the Commonwealth, 4,717 or 7.8 per cent were of foreign birth. The three leading nationalities of these women in their order of rank were Austrian, Russian and Italian. In seven counties the proportion of foreign-born brides to the total was higher than that of the State with Allegheny county and Philadelphia registering the highest percentages. Last year, Philadelphia recorded 1,759 marriages of foreign-born women, over a fourth of whom were natives of Russia. There were only nine counties in which the brides of 1931 were all native-born.

The ages of the persons married last year present an interesting study. There were 41 brides, all of whom were native-born, under 15 years of age. Nuptials were performed for 11,064 brides and only 1,763 grooms whose ages ranged between 15 and 19 years. However, the relations are reversed in the older ages. Grooms predominate in all ages over 25 years. Of the 60,160 women who were married in the Keystone State last year, 40,454 or 67 per cent were under 25, while 33,432 or 56 per cent of the men married in 1931 were 25 years of age and over. There were 48 grooms and 5 brides who had passed their seventy-fifth birthday.

While the great majority of marriages performed in 1931 were "first" marriages, there was a considerable number of persons whom the records show had been married previously. Remarriages are more common among men than among women, 14 per cent of the grooms and only 12.6 per cent of the brides having contracted former marriages. The greatest number of "second" marriages of brides occurred between 25 and 29 years of age, and of "third" marriages between 40 and 44 years. In the case of grooms, there were more "second" marriages in the age group 35–39 years than in any other, and "third" marriages were most prevalent among men from 50 to 54 years of age. In three "fourth" marriages the brides' ages ranged from 20 to 24 years and the ages of two of the 16 grooms who embarked on their fourth matrimonial venture exceeded 75 years.

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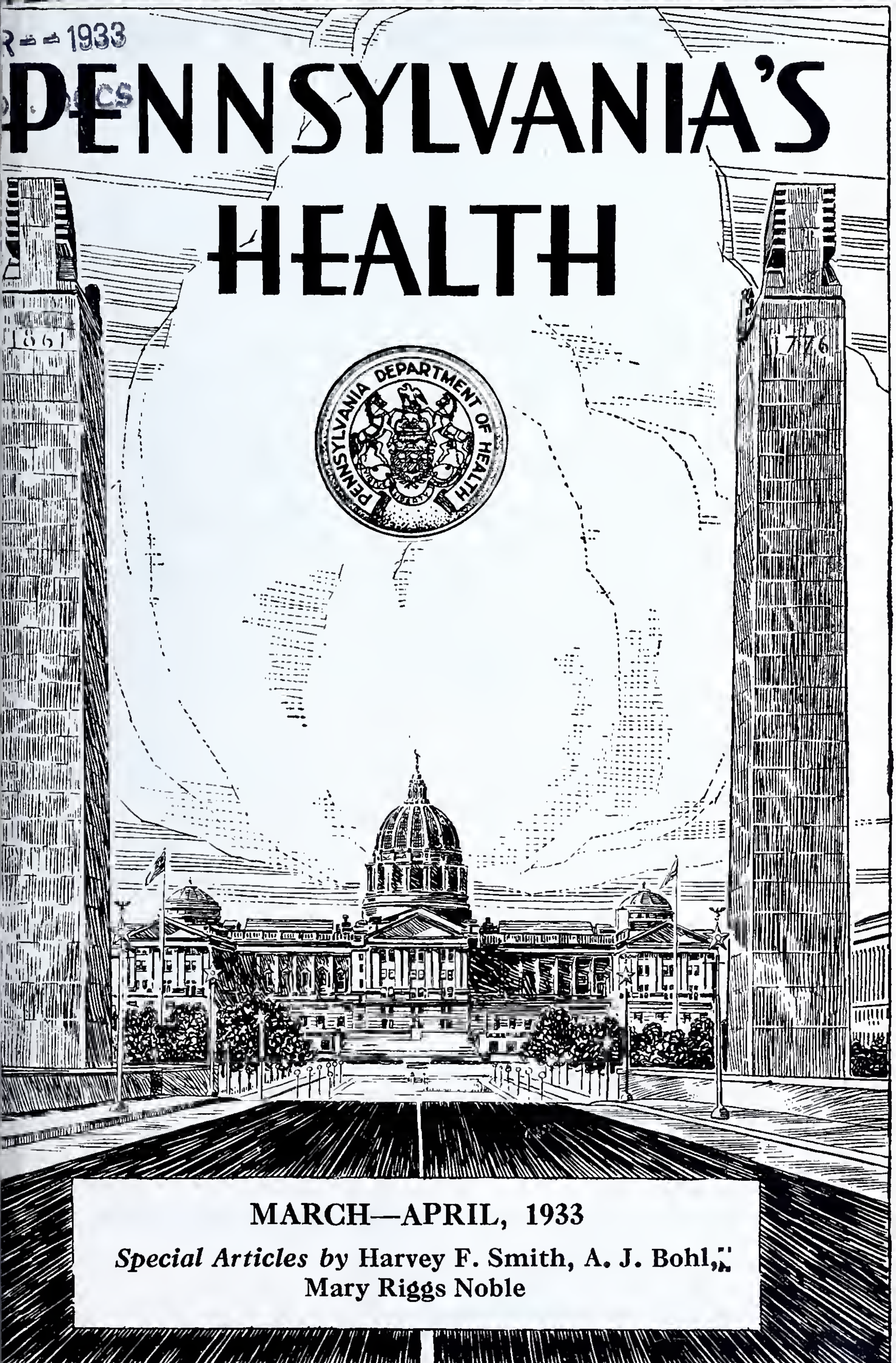
# PENNSYLVANIA'S HEALTH



MARCH—APRIL, 1933

*Special Articles by* Harvey F. Smith, A. J. Bohl,
Mary Riggs Noble

# PENNSYLVANIA DEPARTMENT OF HEALTH

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2. Cresson Sanatorium—Medical Director, T. H. A. Stites, M. D.
3. Hamburg Sanatorium—Medical Director, H. A. Gorman, M. D.
4. State Hospital for Crippled Children—Francis S. Chambers, M. D.

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2. School Sanitation—
3. Pre-School—Mary Riggs Noble, M. D.
4. Dental Hygiene—C. J. Hollister, D. D. S.

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   Harold B. Wood, M. D.
2. Genito-Urinary Diseases—Edgar S. Everhart, M. D.
3. Restaurant Hygiene—Howard M. Haines
4. Tuberculosis—John B. Critchfield, M. D.

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2. Roadside Water Supplies—Henry P. Drake
3. Industrial Wastes—F. E. Daniels
4. Housing—H. F. Bronson
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Nursing ......................................Mrs. Mary S. Evans, R. N.
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Vital Statistics ...................................Emlyn Jones, M. D.
Finance .........................................................C. T. Williams

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# Pennsylvania's Health

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# Editorial

## HEALTH "AROUND THE CORNER"

FOR a number of months many of us have become familiar with the type of conversational optimism which in effect, if not actually, closes with the statement, "Prosperity is just around the corner."

This hopeful suggestion of immediacy, if not as yet realized, is excellent psychology. It is indicative of the Great American Spirit which will not listen to the siren voice of disaster. It eventually, if not sooner, will cause a return of national prosperity. America will win, as she always has won. In fact, she is winning now.

However, economic laws with their dollar consequences, are by no means the only real problem of the American public today. Life is a far too complex proposition to have it limited to such subjects as production, distribution, wages and tariffs. Indeed, the greatest concern, unrecognized though it be by the majority, is to live healthily and abundantly.

In the United States today there are literally hundreds of thousands of men and women to whom the term, "health is just around the corner," could be most fittingly applied. These people seldom occupy hospital beds, infrequently seek medical advice, and to all appearances are carrying on well enough. The sad fact remains, however, that they persist in staying in that pathetic category of "almosters"—the might-have-beens.

Well born, with no physical defects or impairments, highly sensitive to business, social and family obligations, they chronically bear a depression around with them in the form of a pack of bad habits. This entirely superfluous burden prevents them from attaining that electrical vibrancy so envied in that other fellow who has the sense to attain and maintain it.

For these people, no major operation is indicated. Nor is a long or expensive experience with the physician required. It is much simpler than that. It means perhaps that systematic exercise is lacking. Then again, it may be a question of more sleep or less food; possibly a cut-down on coffee, tea or tobacco; even so little and delightful a thing as the need of a greater affection for the outdoors. Just such apparently inconsequential matters alone, or in combination, may be keeping one outside Nature's great elect.

Too bad that so many persons are satisfied with a moderate degree of well-being when superlative health and all the joy and happiness that the term implies is—"just around the corner!"

*J. C. F.*

# A BETTER OUTLOOK FOR THE CANCER PATIENT*

**Harvey F. Smith, M. D.**
*Dauphin County Medical Society*

EVERYONE knows that an automobile properly driven and regularly inspected will last much longer than one in which these details are neglected. The same is true of human beings. How many of your own friends or members of your family have met early death or untimely physical incapacity because of the "neglect" to which the average person subjects his body?

There is nothing more depressing in the life of the physician or surgeon than the procession of patients coming for examination with hopelessly advanced diseases. The doctors know that often the patient is slow to realize that he is seriously ill. "Why have you neglected this?" is a frequent question. The usual answer is, "I didn't think it would amount to anything." In many of these cases illness could have been avoided or the damage materially reduced if conditions had been recognized earlier. Someone may ask, "Why is it that the average person will take good care of his automobile and neglect himself?" This question can be answered in several ways. In some cases it is due to a lack of knowledge, in some it is due to indifference and misinformation, while in others the human factor of blind optimism and disinclination to face disagreeable facts is the chief reason. All three of these reasons are involved in the cancer problem.

## What is Cancer?

The word "cancer" is commonly used to describe the various kinds of malignant growths that occur in the body. There are many kinds of cancers, differing widely in their makeup and behavior. They can occur in any tissue or organ of the body. Some grow rapidly, some slowly. Some spread quickly, others more slowly. Some are dangerous, others are less harmful. Some are highly malignant, others very slightly so.

Every cancer begins as a single body cell or group of cells, which for some unknown reason starts to grow independently of the other body tissues. This *abnormal,* lawless growth of body cells forms a tumor which eventually destroys the life of the person in which it occurs. *Normal* body cells are controlled in their growth and destruction by certain fixed laws of nature. Cancer cells grow independently and are *not* controlled by any natural laws which regulate cell growth, cell function and cell destruction. Remember a cancer always begins locally in unhealthy tissue. *It is not contagious. It is not a blood disease.*

*Cancer growth can be divided into three stages:*

1. *In the beginning it is very small and entirely local. Accessible cancers in this state are curable by comparatively simple methods.*
2. *No cancer ever remains for an indefinite time a simple local disease, but increases in size and spreads to local lymph glands. In this stage cure is still possible but more difficult and less certain.*

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*State Health Day Radio Address, Harrisburg, Pa., sponsored by the Dauphin County Medical Society.

3. *The cancer cell invades distant parts of the body and the function of important organs is interfered with. This type of case is absolutely incurable.*

## Early Recognition Essential

With these basic facts in mind it is obvious that the prompt and early recognition of cancer is a most important factor in its cure. The discovery of beginning cancer is often very difficult. In some instances the type of cancer is such that it presents no early symptoms. In other cases it may be mistaken for something else. Again, the cancer can be so deep-seated and obscure as to be diagnosed only by the use of special instruments and special procedures in the hands of specially skilled physicians. The diagnosis is often delayed by failure of the patient to consult a physician regarding a condition which he thought to be unimportant. In women, the delay is often due to a hesitancy to submit to a proper examination.

## Common Forms of Cancer

The more common forms of cancer usually present early signs which can be recognized by the average individual. Cancer of the skin usually develops from a mole, nodule, naevus, old burn, scar or chronic infectious ulcer. Any shallow, indurated bleeding ulcer on the face of a person beyond middle life and persisting for several months is probably cancer.

Cancer of the mouth begins as a small sore on the mucus membrane of the tongue, cheek, gums, lip, palate or floor. It becomes indurated, spreads and refuses to heal. A slowly progressing indurated ulcer occurring in mouth or lower lip must be regarded as malignant until proved otherwise.

Cancer of the breast begins as a small, painless lump.

Return of bleeding some years after the change of life usually means cancer of the uterus. Any vaginal discharge or deviation from the normal menstrual flow should be promptly investigated. Very often this does not mean cancer but sometimes it does.

The appearance of blood in the stools is frequently one of the first signs of cancer of the rectum. Unfortunately many of the deep-seated cancers give no early signs which make their existence known to the patient.

You will note that *pain* and *impaired* health are *not* mentioned as early symptoms. Every doctor has heard many times in the course of an examination, "I know this lump in my breast is not cancer because it has never pained me." One of the unfathomed mysteries is just how the public acquired the belief that pain must be associated with early cancer. Let me emphasize that with one exception (cancer of the bone) pain is *never* a symptom of early cancer. Tumor, ulcer, discharge, bleeding are the first suggestive signs.

## Treatment

When a cancer has actually developed the only effective methods of treatment are surgery, radium and X-ray in the hands of skilled physicians. The relative merit of these methods depends upon the variety and the location of the cancer to be treated. In some cases, when the disease is local and accessible, surgery is the most suitable method. In others, radium and X-ray are preferable. Sometimes a combination of these methods gives the best results. The choice of method in every case should be a matter of medical judgment.

## Prevention

Many cancers are cured by the early application of proper and adequate treatment. However, these happy results do not occur as frequently as we would wish because many do not present themselves for treatment in this early, curable stage. Therefore, the very best treatment for cancer is prevention. Scientific medicine has definitely proved that *prevention* is possible in cancer of the skin, mouth and uterus. Prevention of cancers in these three portions of the body rests upon periodic examinations. This protection from cancer, based upon periodic examinations and on reporting to a physician the moment one is warned, is practically the same kind of protection, and in most instances, just as complete as is that of vaccination against smallpox, inoculations against typhoid fever, toxin antitoxin against diphtheria and antitoxin against tetanus.

Let me briefly detail how this preventive measure works. Cancers never begin in normal healthy tissue. Cancer of the mouth is the result of chronic irritation of tobacco, ragged, dirty teeth and badly fitting plates. These conditions can all be corrected and these cancers can be prevented. Therefore, no one should die of cancer of the mouth who is under the care of a good dentist.

Cancer of the skin is absolutely preventable. Observations here prove that cancer never begins as cancer, nor in a normal spot. There is first an *abnormal* spot which is not cancer. These spots may be small skin tumors, sebaceous cysts, old ulcers, small scaly patches, or brown moles. Any individual can see and feel these abnormal spots, and the advice of a physician should be sought. No beautiful woman dies of cancer of the skin because her vanity compels her to pay proper attention to the first blemish.

Cancer of the neck of the womb is preventable. The cause is chronic irritation resulting from laceration of childbirth. The progress is slow and is not cancer for years. This condition, called cervicitis, is not cancer and gives no sign of its presence except possibly a slight discharge. Moreover, there may be no pain, discharge or bleeding until a cancer is fully developed. Therefore, to protect mothers from this type of cancer there must be, at proper intervals after the birth of the child, an inspection of the cervix by a good light. Every diseased cervix caused by childbirth tears can be restored to normal. A normal cervix is the best insurance against cancer. Women themselves are responsible for the present appalling death rate from cervical cancer. *Let me emphasize once more that the cause of any vaginal discharge, irregular bleeding or vaginal bleeding after menopause must be determined and not lightly explained away without a thorough local examination. If every mother had the lacerations of childbirth repaired and periodic inspections after the age of forty there would be no deaths from cancer of the cervix. Less than 10 percent avail themselves of this protection.*

Tremendous improvement in the management of cancer of the breast could be made if women would seek advice the moment they feel anything unusual in one or both breasts. There is 95 per cent probability that the trouble is not cancer. If the lump is an early cancer, the woman has a 70 to 80 per cent chance for cure by immediate and thorough surgical treatment followed by X-ray. Should this same woman delay six months to one year, the chances for a cure are reduced to 10 per cent.

The time to cure cancer is before it begins. There is no reason to fear cancer if one has a good family physician to whom he goes for a periodic examination and whose advice is sought the moment any symptoms are observed. The danger of cancer is not so much that it is a common disease, but that it is a neglected one.

# The Health Gnome Says—

This world is full of persons
  With ability to spare;
But they seldom set the world on fire—
  Even success is very rare.

They belong to the "almosters"
  Who, no matter how they strive;
Lack something in their work or "breaks"
  And therefore don't arrive.

Pathetic as these people are,
  There is yet another throng,
That outnumbers them by thousands
  Who likewise don't "belong."

They are the men and women,
  Who are blind to Nature's orders;
And instead of having vibrant health
  Are just outside its borders.

They, too, are just "almosters,"
  A pathetic group to view—
Look well to Old Dame Nature's laws
  That they do not include you!

*J. C. F.*

## SIX CENTS A DAY

### A. J. Bohl

*Supervisor of Health Officers*

YOU know, somehow it has become sort of fashionable to blame everything on the depression. Practically everything, that is; and most of these things are on the seamy side. But there is a silver lining to every cloud, and it's refreshing to be able to lay at the feet of the depression something bright and glittering, something that breaks the black cloud of despair and destitution that hangs over us. What I have in mind is the response of humanity to want and suffering, the willingness to help, in short—Charity. Charity can be grudging, can be condescending, but I don't mean that kind. Real charity can come from individuals or from the state or even from the nation. It may be disguised, may be called by another name, but as old William Shakespeare said, "A rose by any other name may smell as sweet."

Just as an example, so that you'll see what I mean, let us take a journey to Williamsport. In that fine old town in the hills there are a lot of unemployed people, which is a pretty general condition everywhere today; but anyhow, there they are, and the community of which they are a part got together $28,000 in 1930, and $30,000 in 1931, for their relief. They spent it all for food and fuel, and even clothing and shoes; but in November, 1932, the government made available relief funds through the Talbot Act, the actual cash coming from the sales tax which is becoming more or less familiar to all of us. Today Williamsport is operating its relief organization with these funds.

No matter how much cash a city or district, or even a state, may have for relief, it is obvious that it must be spent in a business-like way. It can be wasted, can be diverted for improper things; and every nickel that goes the wrong way means a nickel less for actual needs. Food costs in relief work can run high, have run as high as thirty cents a day per person in some cities. Ten or twelve cents a day is the usual figure. So, with a given amount of money and a given number of people, it is possible that abuses may creep into administration to such an extent that somebody's going to suffer.

In other words, the feeding of thousands of people isn't a hit or miss proposition. It is big business, really. Each of us eats from ten to fifteen pounds of food a week, and if we have a relief list of nine or ten thousand people; well, very simply, that's a lot of food. And we can't just buy that weight of food promiscuously, as if it were so much scrap iron.

Just think of your own problem, if you are a housewife. How you try to vary your diet so that your family has the proper proportion of protein and carbohydrate, mineral and fat and vitamine, and all the rest of the things that make for health. This same problem applies in relief work, but it has been solved efficiently and scientifically so that Williamsport's nine thousand are getting plenty of good nourishing food.

Naturally, everyone can't have just what he wants. There must be a standard, and a standard ration has been worked out which has the approval of the medical profession in Williamsport, the State Medical Society and the State Department of Health. Here is a sample, a list of the various products that make up a weekly ration for an eight to fifteen year old.

| | *Pounds* | *Cost* |
|---|---|---|
| Flour | 3 | .0 (Red Cross Flour) |
| Oatmeal | 1.5 | .00865 |
| Beans | 1 | .02150 |
| Potatoes | 2 | .01832 |
| Meat | 1 | .07 |
| Butterine | .25 | .02 |
| Lard | .25 | .01690 |
| Sugar | .5 | .02170 |
| Cabbage or onions | 1 | .01 |
| Carrots | .5 | .006 |
| Peanut butter | 1 | .06 |
| Cocoa | .5 | .0185 |
| Milk powder | 21 oz. | .079 |
| Bread | 10½ oz. | .025 |
| Salt, pepper and baking powder | | .007 |
| Soap | | .0134 |
| | | .39597 |

The above ration figures total about 16 per cent of fats, 62 per cent of carbohydrates, 13 per cent of vegetables and 8 per cent of animal protein. If you like calories, it provides an average of 2,681 calories per day, which is a good bit more than most of us are eating. In fact, this ration is 25 to 30 per cent higher in calories than medical authorities consider necessary, and is a thoroughly well-balanced diet. Anybody can live on it, and live well. There's another ration for adults, and still another for children under eight, so everyone is given the proper kind and amount of food.

In Williamsport, there are about 9,000 people receiving these rations, in 2,300 families; and since these units weigh from ten to fifteen pounds each, well, there just have to be some statistics about them.

These 9,000 eat about 65 tons of food a week, and of these, flour and potatoes take ten tons each. Eight tons of cornmeal are turned into mush and muffins and that good old-fashioned cornpone, while 12 tons of beans and other vegetables make soup and stew and so on. Five tons of fresh meat are required weekly, with three tons of powdered milk. Two tons of peanut butter, three each of sugar and bread, and two tons of butterine help to fill out the ration, and 2,000 quarts of fresh milk every day is supplied to the small children.

Just to package this food, 75,000 paper bags are filled weekly. Everything is packaged, 125 volunteer workers and 100 unemployed men giving their time to the cause. Food is packaged in the afternoon, and is stored in big bins in front of which is a roller conveyor. It is interesting to watch the cartons being filled as they roll along the track. Every carton is marked "A," "B" or "C," according to the class desired. With a worker at each bin it is amazing to see how the filled cartons pile up ready for the morning crowd.

This "unit ration," while it is perfectly fitted to sustain life properly, might become monotonous, so rations are changed every two weeks. Canned corn and peas are issued, other fresh vegetables are added, and macaroni and prunes lend variety to the diet. The meat issue is fresh ground lean beef, which is occasionally replaced by pork. That ground beef is just right for hamburgers, hot and brown and tasty, with a bit of chopped onion. Not bad, hey?

Cod liver oil is actually on tap, a whole big barrel of it, and any child may have some to supplement his diet. This is taken care of through orders by the physician or nurse in attendance.

**A Voluntary Worker Assembling the Rations**

Of course, there are other essentials. Fruit and fruit juices are supplied to each family, so that the necessary vitamins are supplied, and if anyone needs medical care he can get it. Physicians and dentists have volunteered free services, graduate nurses offer nursing service, the druggists fill prescriptions without charge, and the drug stores help out with such medical and surgical supplies as may be prescribed by the medical profession.

I wish you, all of you, could see this commissary in action. It is a wonderful thing, really, just to see the mechanics of it; how smoothly everything runs, how the packages and units pour out of the packing room, pile up in the distributing end, and vanish like magic into the waiting bags and baskets.

And the other side of the picture is just as interesting. All of the food and supplies and service are free to those who receive it, but it has to be paid for, of course. And it is paid for, by everyone of us, through the little old sales tax.

**Nurses are Always on Hand to Advise About Diet and Other Matters**

It's a grand thing to think, next time you pay a tax on your movie ticket or ten dollars on your thousand dollar car, that that piece of money is going to help someone, somewhere, going to keep him from being supperless, going to help him to evade some of the despair and helplessness that is the inevitable portion of the fellow without a job.

Oh, I almost forgot to tell you what the title of this story means. Here it is, just another "statistic."

For the adults.....Ration A, Weight $14\frac{7}{8}$ lbs., Cost $.42225
For the adolescents.Ration B, Weight $13\frac{3}{16}$ lbs., Cost $.39597
For the children...Ration C, Weight $10\frac{5}{8}$ lbs., Cost $.27507

And there you are, that weekly "A" ration, divided by seven, gives you six cents a day. Sounds unbelievable, doesn't it. But it's true!

# THE PRESCHOOL CHILD*

**Mary Riggs Noble, M. D.**
*Chief, Preschool Section*
*Bureau of Child Health*

SOME of us easily can remember the day when the preschool child had not been mentioned. The name is a new one, and we watched that child come out of complete obscurity, until today many of us will admit that it is one of our most burning problems.

Twelve years ago, we first began to talk about the forming of child health centers and what most of you call baby clinics. We had an idea if we organized for that kind of work, that mothers would bring all their children to this one place. They would bring their older child as they would bring their younger child. In many places that is not the case. There are baby clinics, but the preschool child has been lost in the shuffle. While this is not so everywhere, many a small town will tell you that they have no preschool work of a permanent character.

The White House Conference made us conscious of a great many things. Nothing more important came out of that Conference than that this preschool child needs something done for it from every point of view. A few years ago we thought of the child from two to six as making up a large army. I have heard more than one person say it is one of the worst problems we have. No one is sure of how many children we have from two to six. Now I see lines of cleavage. The six-year olds are being taken care of better in Pennsylvania than in any previous year, and all over the country there are more six-year olds adequately examined and their defects corrected than ever before.

However, it is a shame that we shall wait for six years—drop the child after infancy and it is never brought to the light until the sixth year—and then try to make up for the inadequate care during that period. It is an imperfect plan to do nothing between infancy and the last summer before it goes to school; but, as long as we are neglecting that, better get the child in the sixth summer and do what we can for it. The six-year olds, we are glad to say, are being divided; they are a distinct group on whom we can put our hands.

## Kindergarten Inspection

In the group from two to six, there is another little line of cleavage. The public school kindergarten is giving us another opportunity to do a piece of health supervision work which is well worth while. The Health Department had a doctor it could assign to this work two years ago. We picked our first county with care. We wanted to have the plan succeed in that first county or no county superintendent would want us to come. We wanted to be sure that there would be a willing county superintendent and also enough adequate nurses to follow up. We chose Berks county as the first one fully prepared to give the child a complete examination from the crown of his head to the soles of his feet with the child's parents present—a little different from the regular school inspection where the law hampers.

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*Paper read before the Eighth Annual Conference of the Pennsylvania Public Health Association.

In this kindergarten work, it is a very little group, relatively, that we are getting after. A generation from now practically all the prospective first-graders will be in the kindergarten. In the city of Philadelphia, there are something like four hundred public school kindergartens. There are just over five hundred in all the rest of the schools put together. Our doctor can adopt a regular beat.

We have a way of taking in another group not mentioned. We have taken in the six-year olds, the four to five, and now we have left the two to three-year olds. The Health Department has another way of reaching this group. We sent out two motor health units, travelling only in the rural areas, avoiding the larger towns where there is well-organized public health work. In a single season just past, we examined ten thousand children. This gives us three groups, cut off from one another by certain perfectly definite considerations.

To Keep Them Well and Happy is No Small Job

But we have not a program that touches all the preschool children in the state of Pennsylvania as yet. This program will not exist until every community sees the group of preschool children in its own town as its own problem. We do not need many doctors or nurses; we only require people with an understanding of simple and fairly inexpensive things that ought to be done for these little ones in the line of prevention.

Experience makes us certain that it is a worth while thing to supervise the physical condition of the child of this age. Any of you who have been in touch with the clinical findings know that we have always understated the problem instead of overstated. We can make a very good guess as to how many children will have nose and throat operations, how many will be underweight, but the Department gets these facts down in black and white with the name of every child.

## Value of Vision Tests

Now, as year by year, we try to do more careful work, there are certain things we try to emphasize. I would like to mention a few things. A few years ago, when the cars first started out, we tried to examine the eyes of the children whom we knew would be in first grade in the autumn. Within the last two or three years, we have realized that every child over four years of age ought to have a vision test, and the things that have been discovered have had a very chastening effect on those of us who thought the child could wait until it entered school to get glasses. A child with one blind eye can go all through his preschool and part of his school year and never know it. Every blind eye that is discovered means that we are saving a little scrap of humanity to a far wider life. This information is forwarded to the Council for the Blind whose concern it then becomes.

## Putting the Spot-Light on Hearts

We are now doing a very much more careful piece of work with our little children's hearts. You read in papers about the sudden deaths from heart disease, and you note that the medical profession all over the country, all over the world, is emphasizing the cardiac clinic. We are just beginning to discover that we must look to the preschool child again.

We examined 174 children in Berks county between four and six years of age. Fifteen per cent of these children were found with hearts that were not quite perfect, and I did not dare go out to tell people. It seemed so high to me, it seemed incredible. However, I did mention it when I was telling a lay audience just how necessary it was, and I found two pediatricians in the audience who were ready to confirm our kindergarten figures.

The laity has a reason to ask us why we are finding hearts in children that are not quite entirely normal, but at least there are one or two suppositions. Our control of communicable disease is better than it was a few years ago. It may just be that their recovery leaves them with an impaired heart. Whatever the cause, however much more we have to learn as to why it is so, here are the facts: That out of every one hundred preschool children given a careful examination we are finding many whose hearts ought to have especial care given to them.

The White House Conference brought out that only eleven to thirteen per cent of our children are protected against diphtheria. Vaccination is not done until the law comes down and says you must be vaccinated or you cannot go to school. These two preventive measures are being so little used. There still remains a very great deal to be done for our preschool children.

## DEPARTMENT NEWS

A NEW SYSTEM—H. V. Smith, director of the bureau of narcotic drug control, recently reported to the Secretary of Health that an identification system to aid in enforcing the Pennsylvania narcotic law has been installed by the bureau.

The system is divided into two sections; the first covers persons strongly suspected of being traffickers in narcotic drugs, while the second section records those actually proven to be engaged in the illegal traffic.

Each section contains photographs of persons listed, together with personal description, finger-print record and brief history. It is proposed to keep this system up to date by checking with police and federal records; and it covers not only those connected with the illicit narcotic drug traffic in Pennsylvania but throughout the United States.

"The installation of this record, which is national rather than local in scope, will make it exceedingly difficult for outside narcotic traffickers to do business in Pennsylvania," commented director Smith. "Moreover, narcotic fugitives from other states will promptly discover that their records have caught up with them. It is believed that the installation of this criminal identification system marks an important advance in narcotic enforcement in Pennsylvania."

**Without Child Conservation no Nation can Attain Maximum Health**

INCREASED BUSINESS—More child health centers are now in operation in Pennsylvania than at any previous time since such work was organized in 1919, according to a report recently forwarded to the Secretary of Health by Dr. Mary Riggs Noble, chief of the preschool section.

The demand for new health centers has been marked during the past year. Undoubtedly this situation is the direct result of the present economic situation, and indicates a keen sense of community obligation toward undernourished and handicapped children.

Representatives of the State Health Department are cooperating with local committees in various sections of the Commonwealth to meet the present demand for child health conservation.

ON TOP AGAIN—The recent essay contest sponsored by the Commission on Cancer Control of the Medical Society of Pennsylvania was won by Miss Elizabeth M. Dennie, department nurse, stationed at Chester. Honorable mention was given to the essay of Miss Sarah V. Cook, department nurse, stationed at Huntingdon. The prize of $50.00 has already been sent to Miss Dennie by Dr. James M. Wainwright, of Scranton, who is chairman of the Medical Society's Cancer Committee

Several hundred public health nurses throughout Pennsylvania, in addition to Department nurses, entered essays. Congratulations to Nurse Dennie and Nurse Cook!

**Early Treatment is the Secret of a Successful Syphilis Cure**

DEPARTMENT SUPERVISION—Personnel of the Department's restaurant hygiene section are enforcing the regulations regarding food and food handlers in connection with the three public markets now being operated at Erie, York and Williamsport, respectively.

The county medical directors have already examined all food handlers. A recent inspection indicates that the sanitary regulations affecting the distribution and handling of food are being satisfactorily enforced.

APPENDICITIS INVESTIGATION—Through the courtesy of the various hospitals throughout Pennsylvania a detailed study of the appendicitis situation is now being made by Department physicians. Preliminary reports, which recently reached the desk of the Secretary of Health, indicate that this affliction is apparently definitely increasing from year to year. The purpose of the survey is to determine ways and means, if possible, of reducing the fatality rate.

LABORATORY MANUAL—The new Laboratory Manual, which treats of the methods of analysis of milk and its products and which was compiled by the International Association of Milk Dealers, Chicago, is now ready for general distribution, according to a recently received announcement. This manual in detail outlines milk plant laboratory procedure.

BIGGER BURDEN ON G-U CLINICS—There were 20,500 patients treated in the Department's 55 genito-urinary clinics in the last thirty days. There has been a marked increase in attendance at these clinics during the past year and a half, which is based not upon an increased incidence in the social diseases but upon the inability of patients to pay for private treatment.

**Equipment Like This Helps to Protect the Milk Supply**

When one considers the incalculable damage which would directly and indirectly result from the lack of proper medical control over these patients, the value of this type of work both in the depression and in prosperous times can be more readily appreciated.

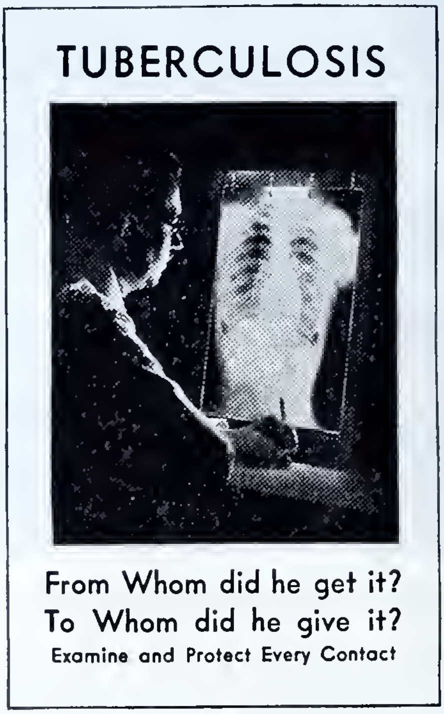
Unfortunately, syphilis and gonorrhea belong to the so-called endless chain diseases. The realization of this unfortunate fact, both on the part of victims and public health officials, has undoubtedly limited the even yet too deplorable results directly arising therefrom.

A RECORD HIGH—A million quarts of milk were distributed in a recent seven-day period through the 2,500 distributing sources known as Pennsylvania Milk Stations. These stations are supported through federal funds and are supervised by the State Emergency Relief Board.

In addition to this vast quantity of milk, 31,000 quarts were distributed through the 19 State Milk Stations which are financed from a portion of the money received from the State Capitol Employes' Fund for Organized Charity. Approximately $100,000 have been allotted to milk relief by employes from their voluntary contribution of a day's pay each month. At the present time this allotment is being drawn upon at the rate of $10,000 a month.

"By Governor Pinchot's order, the supervision of the distribution of milk to undernourished children throughout Pennsylvania is in the hands of the State Department of Health, working in cooperation with the various county organizations set up by the State Emergency Relief Board," states Doctor Appel. "One hundred and thirty nurses of the Department's nursing bureau are assisting in the supervision, investigation and follow-up work connected with this tremendous program.

"The splendid spirit of cooperation on the part of the medical profession, teachers and welfare workers regarding milk relief will result in materially combating the destructive physical factors in children which inevitably arise in a depression, and which have as their basis a lack of proper nutrition."


TUBERCULOSIS
From Whom did he get it?
To Whom did he give it?
Examine and Protect Every Contact

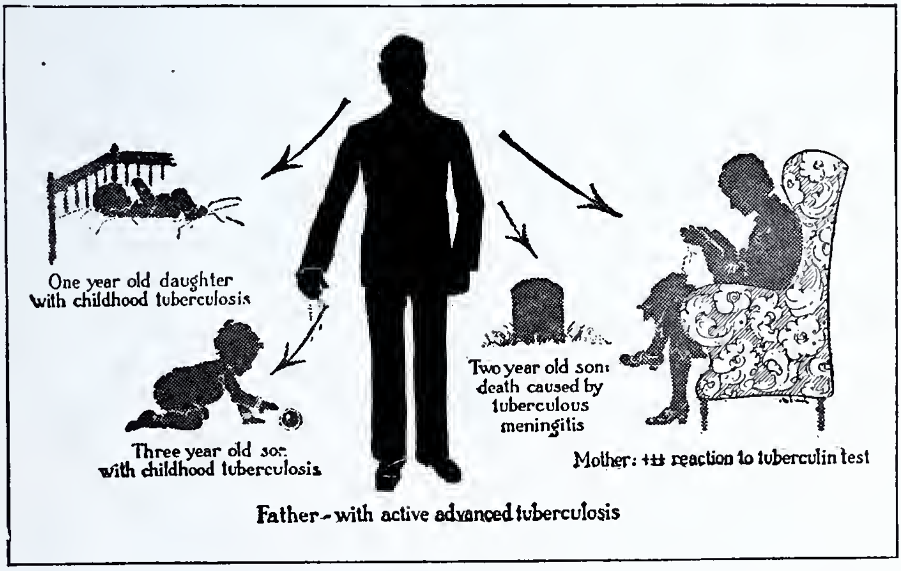
An Intelligent Consideration of the Contact Problem is Sadly Needed

GUARDS MILK—The bureau of milk control in the last sixty days conducted 35 hearings against milk dealers who were not complying with the regulations, according to a report submitted by director Brinton. As a result of the evidence submitted, 19 dealers lost their licenses to distribute milk, 12 were placed on probation pending changes in conditions, while 4 produced evidence that conditions complained against had been remedied.

In this and many other ways the bureau of milk control is ever on the alert to protect the people of Pennsylvania against the possibility of infection and disease because of poorly conditioned and unsafe milk.

MANY INSPECTIONS—The bureau of engineering recently reported to the Secretary of Health that an investigation of conditions affecting rural sanitation involved 43,000 inspections. This service, annually rendered, includes not only the abatement of unhealthy conditions but also makes available advice and help on problems in connection with safe water supplies, and the disposal of sewage, garbage and other wastes. Reports indicate that sanitary conditions are unusually satisfactory in the rural districts.

THE TUBERCULOSIS FIGHT MUST GO ON—Each year in this state the National Tuberculosis Association, through its Pennsylvania Tuberculosis Association, strives to focus public attention on a single pertinent fact about tuberculosis. During 1932, an educational campaign reminded the people that tuberculosis comes only from tuberculosis, or, in the words of the slogan that, "Every Case Comes from Another." The success of that effort has warranted the continuation or repetition of this idea in somewhat modified form. Consequently, during 1933, the slogan of the early diagnosis campaign will be "Examine and Protect Every Contact."


One year old daughter with childhood tuberculosis
Three year old son with childhood tuberculosis
Two year old son: death caused by tuberculous meningitis
Mother: +++ reaction to tuberculin test
Father—with active advanced tuberculosis

A Contact Case is the Most Powerful Ally of Tuberculosis

Beginning April 1st, the publicity and educational message of tuberculosis associations will urge that whenever a case of tuberculosis is discovered, every contact should be examined. Emphasis will be laid on the danger of the disease to children and the necessity of examining them with the tuberculin test and the X-ray. Because of the economic stress it is all the more necessary to build our defenses against the enemy, who strikes when resistance is low.

Physicians, health officers, public health nurses, social workers, civic groups and community leaders will participate in the campaign. Insurance companies, employers, business organizations and others can help. To point up the campaign, there have been prepared in advance, pamphlets, posters, plate matter for newspapers, special articles and cuts for magazines, lantern slides and a motion picture. Talks will be given before clubs, church groups, schools and over the radio. In numerous ways, persons will be helped to find out if they have the disease, to secure proper treatment, and to learn to protect others.

OBEYING FOOD REGULATIONS—The markets of Pennsylvania are satisfactorily complying with the state regulations which require that bakery products and foodstuffs not calling for additional cooking be protected from dust, dirt and flies, according to a report submitted recently by the restaurant hygiene section.

Commenting on this report Doctor Appel said, "For the past six months personnel connected with the restaurant hygiene section, as well as local health inspectors of the various municipalities and boroughs, have been making a systematic check-up of the market-houses throughout Pennsylvania. There is no doubt that in most instances the regulation requiring protection of the foodstuffs which do not require additional cooking is being observed. This result has been attained with a minimum of prosecutions because of the cooperation of the market people themselves and by the public's attitude in refusing to purchase articles from persons whose stands were not protected adequately. Continuous supervision of market-places will, of course, be carried on indefinitely."

# Vital Statistics Comment

## THE SAVING OF HUMAN LIFE

**Florence Hardy**
*Assistant Statistician*

OUT of the present economic depression there has developed a new conception of values. For the first time, in many cases, a check has been made of assets against liabilities. And with the threatened loss of financial security it was natural to question all forms of saving and all guarantees of profit. However, while public confidence failed in some enterprises it was strengthened in other investments whose dividends were paid in full as formerly. This is true not only of individuals but also of communities and states.

In appraising her wealth, Pennsylvania should include a possession which does not appear on her ledgers. This is health. The cost of obtaining improved health conditions throughout the Commonwealth has been small in relation to the inestimable benefits which have resulted. This is illustrated in comparing recent mortality rates with those of 1906, the first year of registration in this state.

If the 1906 general death rate of 16.0 per 1,000 population had prevailed in Pennsylvania in 1931, there would have been 155,880 deaths instead of the 111,936 which did occur—a saving of 43,944 lives. Of this number, there were 17,938 fewer infant deaths than would have been recorded under the conditions of 1906. Applying this test to the most common causes of death shows where the greatest reductions have been made as well as those diseases whose death rates have increased in the past twenty-six years.

Comparing the actual mortality in Pennsylvania in 1931 with the number of deaths which would have occurred under health conditions of 1906 there were:

| *Lives Saved* | *From* | *Lives Lost* | *From* |
|---:|---|---:|---|
| 43,944 | All Causes of Death | 358 | Appendicitis |
| 17,938 | Deaths under one year | 2,401 | Automobile Accidents |
| 206 | Alcoholism | 4,408 | Cancer |
| 422 | Cirrhosis of the Liver | 1,172 | Cerebral Hemorrhage |
| 276 | Congenital Malformations | 1,464 | Diabetes |
| 11,633 | Diarrhea and Enteritis (under 2 years) | 10,434 | Heart Disease |
| 2,958 | Diphtheria | 1,742 | Influenza |
| 1,499 | Diseases of Early Infancy | 1,150 | Nephritis |
| 21 | Homicides | 437 | Suicides |
| 110 | Malaria | | |
| 1,556 | Measles | | |
| 700 | Mine Accidents | | |
| 3,827 | Pneumonia | | |
| 131 | Puerperal Causes | | |
| 2,490 | Railroad Accidents | | |
| 566 | Scarlet Fever | | |
| 10 | Smallpox | | |
| 9,031 | Tuberculosis | | |
| 5,134 | Typhoid Fever | | |
| 1,805 | Whooping Cough | | |

The returns from public health services are unlimited. Lives saved in 1931 alone were nearly four times the total number of deaths of Pennsylvanians in the World War. However, dividends of health, like stocks, are paid in proportion to the amount invested. In view of the steadily increasing death rates from degenerative diseases and the present incursions made by the depression upon the well-being of their people, it is urgent that communities continue the health protection that has accomplished this saving of human life during the past quarter of a century.

# PENNSYLVANIA'S HEALTH

PENNSYLVANIA DEPARTMENT OF HEALTH

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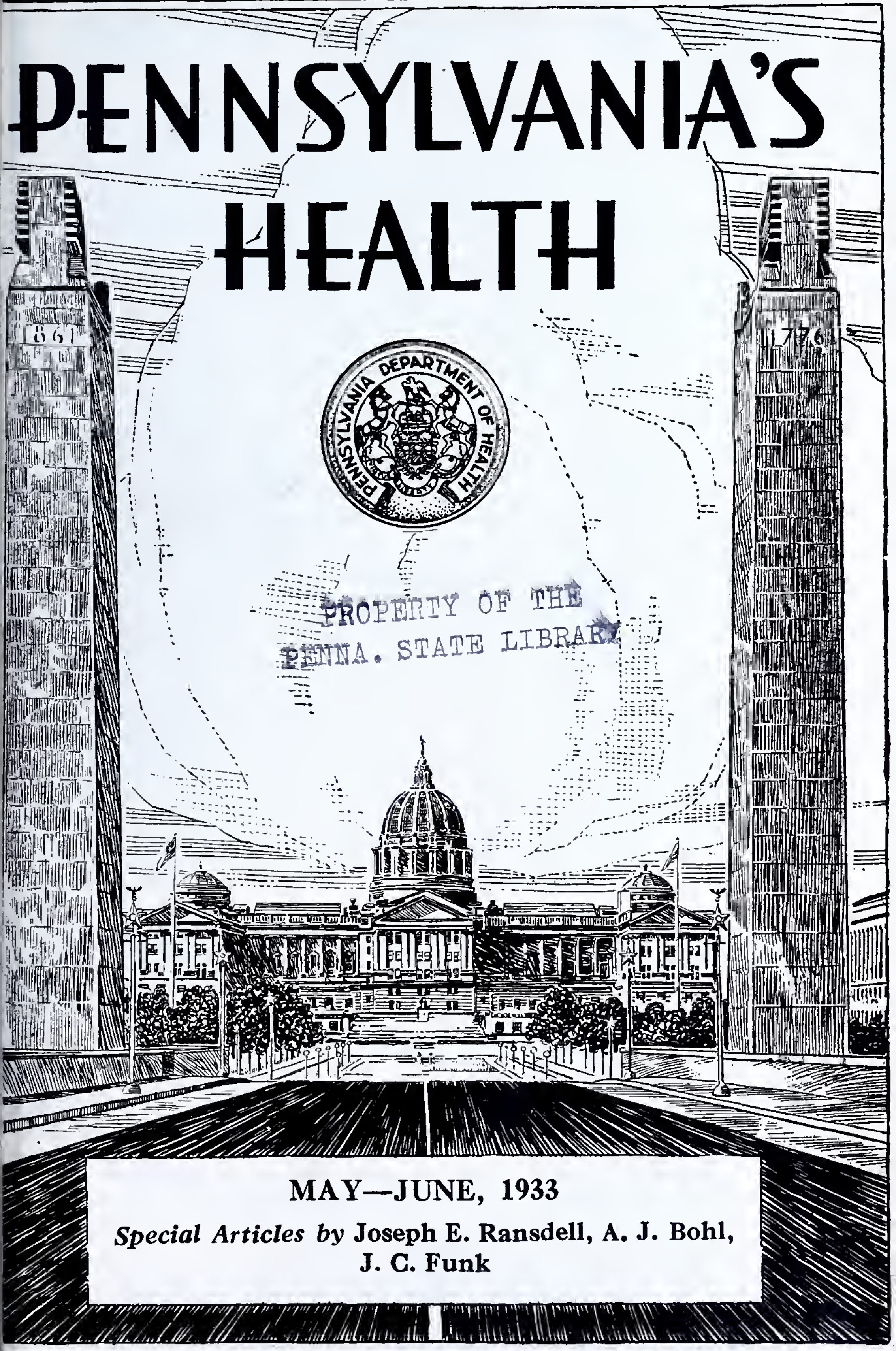

MAY—JUNE, 1933

*Special Articles by* **Joseph E. Ransdell, A. J. Bohl, J. C. Funk**

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# Pennsylvania's Health

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# Editorial

## KNOWLEDGE IS POWER

AMAZING progress has been made in medical and surgical science in the short span of fifty years. Nevertheless, the fact remains that an intelligent conception of the individual's responsibility toward disease prevention is just as essential today as it always has been. Indeed, there is more reason for it now than ever before.

Thanks to the miraculous and spectacular discoveries of that untiring and frequently heroic group known as the research workers, many of the mass hazards that formerly brought premature death to hundreds of thousands no longer exist. Veritably, group safety is on an unprecedently high plane.

Unfortunately, however, the human being is limited in his delegation of health conservation. He can leave pure water, safe milk and the control of many of the contagious diseases to the laboratory and the public health official. But with these things properly entrusted to others, a very big individual job yet remains if personal health and reasonably long life are to be enjoyed.

It is at this point that so many fail. Resting in the false security of scientific achievement, the average person is likely to view health largely as an academic and abstract proposition; and this, despite the high-powered exploitation of the health urge to which he is constantly subjected by way of the radio, syndicated health articles, popular health stories and attractive advertising. Apparently this type of citizen somehow arrives at the dangerous conclusion that public health officials have a corner on health-concern. What a pathetic vagary!

Of course, health officials do their part, and do it magnificently. But when it comes to regulating the daily actions and habits of 120,000,000 free citizens, they are naturally helpless.

Indeed, public health administration in all its protective phases but supplements routine living. If this routine is mainly destructive, then present-day science, however great and powerful it may be, will be of little avail to the individual involved.

Therefore, to know one's physical limitations and respect them is one of the secrets of a healthy existence. Knowledge is power. But in this instance it demands personal knowledge personally applied—and not the other fellow's!

*J. C. F.*

# THE NATION'S HEALTH CENTER

**Joseph E. Ransdell**
*Former U. S. Senator from Louisiana*
*Executive Director, Conference Board,*
*National Institute of Health*
*President, National Health Foundation*

SYMBOLIC of its eminence in medical research and public health conservation, the National Institute of Health of the United States Public Health Service stands on a hill in the city of Washington, overlooking the Potomac River and surrounding countryside. The little red brick buildings which house it have seen the dawn of preventive medicine and occupy a central place in the efforts which have been made to rid the world of diseases that are preventable. It has existed as the Government's research laboratory, an integral part of the United States Public Health Service since 1887. In that year it came into being as a small laboratory located at the Marine Hospital in New York. In 1901, Congress moved it to Washington, appropriated $35,000 for a building, and gave it the name of Hygienic Laboratory.

From this small beginning the Hygienic Laboratory developed until 1930, when the Ransdell act was passed creating the National Institute of Health, with the laboratory equipment and scientific organization as a nucleus, and appropriating $750,000 for new buildings which are now nearing completion on the site of the Institute in Washington.

The Ransdell act has three distinct features: First, it creates the National Institute of Health "for the special purpose of pure scientific research to ascertain the cause, prevention and cure of disease affecting human beings."

Second, it authorizes the Treasury Department to accept gifts unconditionally for study, investigation and research into health problems, with the proviso that if gifts in the sum of $500,000 or more are made, the name of the donor shall be perpetuated by establishment of a suitable memorial in the Institute. This is an unusual provision in legislation, though not without precedent. The Smithsonian Institution and the Library of Congress are instances worthy of note in which such gifts are permitted.

Two of the contributions thus far received indicate the universality of the gifts that may be used to combat disease at the Institute. One of $100,000 was given by the Chemical Foundation, Inc., of New York, through its president, Francis P. Garvan. Another of $1.00 was given by Charles P. Wilder, of Worcester, Massachusetts. It is the purpose to encourage small contributions as well as large ones, not alone for the purpose of building up the funds at the disposal of the new research institution, but because of the widened public interest which will thus be generated.

The third feature of the law proposes the establishment and maintenance in the Institute of a system of fellowships in scientific research. This provision is considered outstanding. Its purpose is to enlist a strong personnel and to encourage and aid men and women of marked ability to engage in research.

While it is contemplated that most of the research work will be done in the Institute laboratories in Washington, this is not required by the act. Under the law, the fellows may be assigned to institutions in any part of the world.

The value of research is not immediately apparent to the layman, who sees only the end-result, but its indispensable character is obvious to the practicing physician. Without it such diseases as yellow fever, smallpox, diphtheria, typhoid fever and many other dread killers would still hold unutterable horror for man. As a result of the untiring efforts of workers, it is now within the realm of possibility that many other diseases—cancer, respiratory diseases, heart affections—will soon be as rare as those others which have fallen before the onslaughts of science. From the laboratories of the quiet, unassuming men, who work with germs and bugs in order that life may be made longer and happier, the knowledge has come that made possible the lengthening of the life span by fifteen years in the past century.

**National Institute of Health—The North Building, housing Laboratories for the Study of Infectious Diseases**

It is with research and the standardization of drugs that the National Institute of Health is concerned. Its staff, highly trained and efficient, concerns itself with the diseases that afflict man, with the single-minded idea of making the lives of people freer from crippling disease and of adding to the happiness and economic greatness of the world.

The National Institute of Health has been of tremendous aid to research. While it is not possible to set down here the total of its accomplishments and contributions to science, a few points may be noted in connection with past and present work.

From the Institute have come Doctor Goldberger's monumental work in the discovery of the cause and prevention of pellagra; Doctor Francis' work on tularemia; Doctor Spencer's work on spotted fever, and his discovery of a protective vaccine; the discovery of Doctors Dyer, Rumerich and Badger of an eastern form of spotted fever, which may prove to be one of our most important public health problems; Professor Voegtlin's fundamental work in the metabolism of normal and cancer cells; and Professor Hudson's contributions to the work on the chemical structure of sugars.

**Monkeys May Acquire Certain Human Diseases which Other Animals Do Not Take. They are Accordingly Used in Studies of Infectious Diseases. In Many Cases Human Volunteers are Used in Connection with Animal Experimentation.**

At the present time studies are in progress at the Institute relating to nutrition, cancer, typhus-spotted fever, tularemia, undulant fever, meningitis, infantile paralysis, ginger paralysis, fundamental researches on sugars, and many other problems relating to the health of man. Through its work in the control and standardization of biologic products, the Institute has probably rendered its greatest service to the people of the United States in safeguarding the numerous serums and vaccines placed on the market. A number of biological standards worked out at the Institute have been adopted by foreign countries.

The possibilities of the National Institute of Health have never been more clearly brought out than by the Senate Committee on Commerce in its report of the Ransdell bill:

"It is confidently believed," said the committee, "that if there is brought together in one central place under one directing head the ablest experts in the sciences of medicine, surgery, chemistry, physics, biology, bacteriology, pharmacology, pharmacy, dentistry, etc., and a concentrated, united effort for a term of years is made by them against disease, singling out first the more important maladies, such as cancer, tuberculosis, the common cold and pneumonia, success will result therefrom. While remarkable and most beneficial efforts have been made in the war against disease by our great medical schools and endowed institutions, there has never been in any one place a combination and concentration of all the branches of science such as is contemplated in the National Institute of Health."

# The Health Gnome Says—

Amazing progress has been made
  In the past fifty years,
By research men and doctors
  To take away our fears.

Smallpox, typhoid and other things
  That humanity so dreaded;
Thanks to great investigators,
  Have been scientifically beheaded.

Thus surrounded by a protection,
  Formerly quite unknown;
Many foolish people think
  They have no problems of their own.

And yet the solid fact remains,
  If one wants life and health;
Most of the job of keeping fit
  Belongs solely to one's self.

Keep this in mind at all times,
  And conform to Nature's rules;
To disregard the Old Dame's laws,
  Is to play the game of fools!

*J. C. F.*

# CAMPING JOYS AND HAZARDS

### A. J. Bohl

*Supervisor of Health Officers*

GOING camping? Well, then, what about the how and when of the proposition, to say nothing of the where? You see, these are all pertinent to the fun and pleasure you will get out of your camp life, and you must give them thought beforehand if you expect to return home well pleased with your outing.

Camping is a grand way to spend your vacation. It's a lot of fun under the right conditions, and even under the wrong ones. You get a change of scene, go back to Nature, sort of revert to the primitive; and that attracts most of us. We're all more or less savages at heart, and life where silver and linen on the table are taboo, where food is without frills, where the luxuries of home-life are lacking, has lots of appeal, for a while.

You know how it is when night falls; there is no noise of automobile and trolley, no hum of city life, nothing but the faint night sounds of the outdoors. There is a big camp fire in which to gaze and dream life's stern realities away, there is a big orange moon ducking in and out of the clouds, a cool breeze blowing, and first thing you know you're ready for bed. And how you can sleep!

No tub next morning, but a plunge into the cold waters of lake or river, a quick rubdown, and breakfast. And a camp breakfast is something, a good one, I mean. When the toast and hot cakes and eggs are just right, and coffee strong and fragrant. Man, that's real living! The sun shining in at the door, or tracing shadows on your tent, and scent of wood smoke, and forest, and good pipe tobacco, all blended into a heady elixir that puts you right up among the gods. No fooling, camping is great fun.

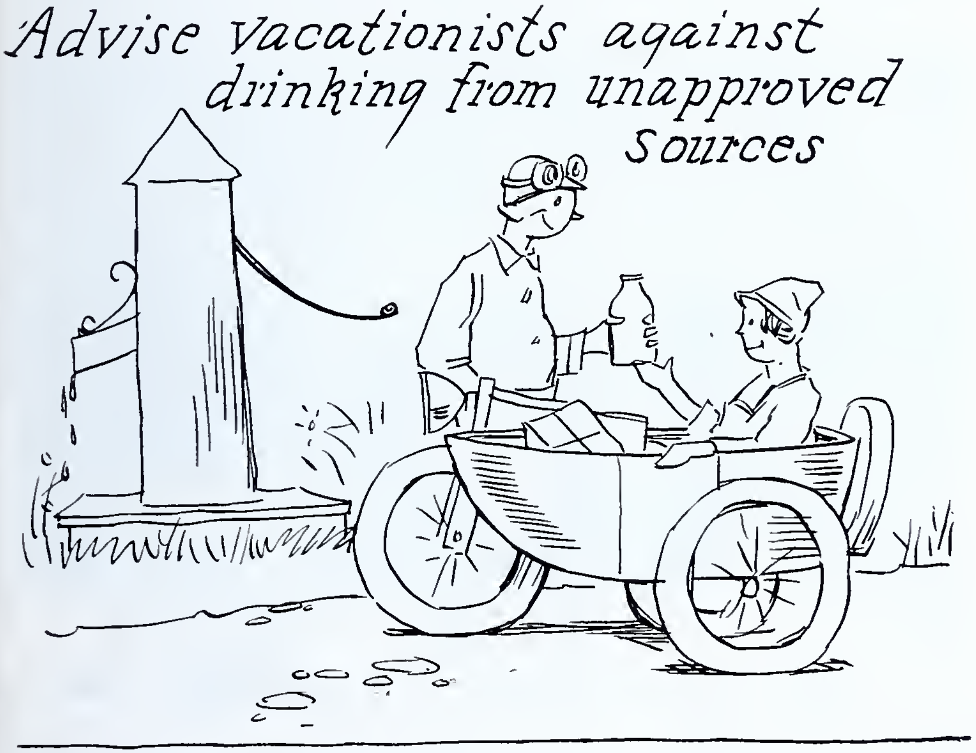
It is not always so pleasant, of course. There are some rainy days, some days when nothing is in tune, but it all comes right next morning or the morning after, and everybody is happy again. Heigh ho for summer and camping!

There are all sorts of camps, from the big and more or less well managed Boy or Girl Scout or "Y" camp to the pup tent outfit. The big camp has a purpose besides just fun, for it has counsellors, leaders, who strive to do something in the way of character building and betterment of physical health and strength. In such a camp as that, there is no doubt but that your child, or yourself for that matter, will get good food in adequate amounts, plenty of sleep and exercise, some training in sports, and something in the way of discipline, and so far as these go, the fundamental purpose of the summer camp—health building—is fulfilled.

But, regardless of the equipment of such a camp, regardless of the physical training of the camper, there are more important things than these. And these are the things that must be thought of before that boy or girl is packed off to camp, namely, safety and health protection.

It is nice to go to camp and learn to swim well but, while your child is learning, what of his safety? Is he going to come home proud of his immature crawl stroke, or is he going to be drowned because of inadequate overseeing? Is he going to be allowed to drink impure water, and thereby pick up an attack of typhoid fever, or perhaps suffer from the same disease through the presence of a "Typhoid Mary" somewhere in the cook house personnel? Is he going to camp in some isolated spot, perhaps a perfect natural Paradise, but entirely too far away from medical or hospital attention should some unforeseen accident occur? Is there going to be a safe or pasteurized milk supply, or is the camp going to live off the nearby countryside, in which the milk supply may be everything but safe? Is there going to be any standard of health required of the prospective campers, or can just anybody go?

Suppose you go up to camp yourself, with your son, or perhaps a few days before. The camp director will show you around, show you the substantial construction of the dining pavilion and cook house, the sleeping tents, and comment on the quality of the food to be served.



Advise vacationists against drinking from unapproved Sources

All very well, but you look for screens. There will be flies, there are flies everywhere, and there is no filthier animal in the world than a fly and none more likely to carry disease. And is the garbage kept in tightly covered metal cans, or in leaky wooden containers? Is it hauled away from camp and properly disposed of, or is it dumped over the surface of the ground in a nearby ravine or wood to provide a fly breeding place.

Next, where does the water supply come from? Is it a spring somewhere in the neighborhood, or a well right on the grounds? Both of them may very well be perfectly safe, of course, but the spring should be covered, so that no one can dip a cup or pail into it. It should be completely enclosed in a tight concrete box, with an overflow pipe by means of which a pail may be filled, and it should not be possible for rain water or surface drainage to enter it, or even wash over and around it. Banking or ditching will usually take care of that. And it is the same with a well. There should be a good tight concrete cover, a pump, and a trough to carry the drip away from the well. And there should not be, at well or spring, a tin cup or other drinking vessel for all and sundry to use.

There will be toilet facilities, naturally, and you should make an inspection here. It is not likely that there are any sewers, so the ordinary outdoor convenience will be provided. It should be kept sanitary and clean, inside and out, and you will probably find no fault with it. It should not be located anywhere near the water supply, it should be of flytight construction with covered seats, and lime or disinfectants should be used freely. Disinfectants are of doubtful value here, but they help to keep down odors, and their use assures cleansing and scrubbing.

And check up a bit on the kitchen equipment, the cupboards and ice-box, and on the health of the cooks and the rest of the kitchen force. They are all food handlers, you know, and everyone of them must have a medical inspection certificate.

Check up a bit, too, on the sports end of the camp. There may be a physical director who is an exceptionally good swimmer, and his slant on sports will be water sports. Naturally it would be, but your boy may have a hankering for basketball or baseball and not care a bit for swimming. And your boy ought to have some say about what he is going to do.

Above all, see that there is a medical director or available medical assistance. A bad fall may result in a broken limb, or a concussion of the brain. There are such things as poisonous snakes, and there are wounds from knives and tools, and hot coals to step on, and water to fall into. Any of these may result in sickness or severe injury, and your boy is entitled to prompt and efficient medical service in case of an accident.

All of these things, and many more, apply to the big camp, and they also apply to your private camp to which your family goes for the summer. There everything is up to you, and you cannot afford to take a chance. Particularly, check up on your water supply. If it is not right, and if you cannot make it right, then move your camp. It does not pay to take a chance on an open spring or on water from a stream in inhabited country. Usually they just cannot be safe, and your summer's fun means very little if it results in sickness or death. Be sure that you have a complete first-aid kit, and be sure that it is used when necessary. Iodine doesn't mean anything in the bottle; its useful place is on that cut finger.

**A Model Camp**

And remember, it is never smart to take a chance. Risks are poor things to take while you are driving in your car to or from camp. Drive carefully, for you have a full load of passengers and equipment. Also, make it a rule that no one goes swimming or canoeing alone. Cramps can strike like lightning, canoes are easily upset, and you know what happens when there is no help.

Think of all these things beforehand, before it is too late. Forewarned is forearmed. And by the way, don't forget that sunburn lotion; better still, respect the power of sunrays and avoid the necessity for its use. Now then, all aboard. And I certainly hope you will have a fine time.

# WHAT YOU SHOULD KNOW ABOUT CANCER*

**J. Clarence Funk, Sc. D.**
*Director, Bureau Public Health Education*

NOT so many years ago death was viewed with an utter fatalism. Death would come when it was ready to come; and "All the King's horses and all the King's men" could do nothing to stop it. Fortunately, this sense of helpless resignation no longer exists, thanks to the spectacular strides in medical and surgical science and to present-day public health administration.

Moreover, today America is quite definitely health-conscious. Articles on health are to be found regularly in the magazines and papers. Talks on health are daily heard over the radio. And by way of advertisements, everyone is urged to eat this, buy that, and go thither and yon, not because the food is especially palatable, nor because of the inherent quality of the article, nor because of the grandeur of the scenery—but largely because of one's health. Indeed, the health-urge has been, and continues to be, very decidedly and generally exploited.

Unfortunately, neither the information on the scientific advances in medicine nor the high-pressure exploitation of health has done much more than develop on the part of the individual a certain and not altogether reasonable sense of security against premature death. Consequently, he frequently fails to appreciate the very essential fact that, after crediting science for the control of many diseases, and the physician and surgeon for their work in times of actual illness, nine-tenths of the job of avoiding premature dissolution belongs to the individual—*and to him only.*

No more emphatic illustration of this unrecognized principle can be found than in the so-called cancer problem. This statement is admirably illuminated by the following historical circumstance.

Shortly after Grover Cleveland's second inauguration, the President discovered an ulcerated patch in his mouth which refused to heal within a reasonable time. Sensing that something was wrong he sought the advice of an army surgeon. The surgeon suspected cancer. A specimen of the ulcer was sent to an army pathologist, who reported that it was cancer. Immediate removal of the malignant growth was advised.

Because of the precarious financial condition of the country at that time, secrecy of the President's condition was maintained. Nor did the public learn until twenty-five years later of the operation which took place on board a yacht in Long Island Sound. As the operation was done wholly within the mouth, there were no external scars; and an artificial jaw of vulcanized rubber took the place of the removed tissue without speech impairment. President Cleveland lived another fifteen years, dying at Princeton in 1908 at the age of seventy-one. And death was *not* due to cancer. Cleveland, by his prompt action, not only was an exception in his day, but would represent one even in these days.

As a matter of fact, many otherwise intelligent men and women have a horror of cancer. They nervously view it as the Captain of the Men of Death. They speak of it as the great scourge. Hearing only of the cancer deaths, they mistakenly conclude that it is incurable. People consequently regard its visitation as utterly hopeless.

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*Lecture delivered before the students of Pennsylvania's State Teachers' Colleges.

But it should be understood that, while the average person delights in boasting of his appendicitis operation, he will invariably soft-pedal on a successful cancer experience. He well knows that many people illogically regard cancer as a stigmatized disease to be classed with leprosy or, for that matter, as tuberculosis was considered only a few years ago. Therefore, he naturally keeps silent.

Nevertheless, the average individual's attitude toward cancer is perfectly absurd. True, it is a serious malady, though an entirely respectable one. And at the outset, I want to emphasize that literally tens of thousands have been cured of cancer. The only justifiable fear in connection with cancer is the fear that the case will not get to the surgeon's office soon enough.

Which brings us to a discussion of the three cancer weapons.

## The Three Cancer Weapons

I have said that President Cleveland's case excellently illustrates the individual's responsibility in the cancer problem and the necessity of an intelligent point of view. And by doing so, it also indicates the three powerful weapons against cancer. First, early seeking of advice by the patient; second, prompt and accurate diagnosis; third, immediate and adequate treatment.

The lack of these factors, so pathetically denied the majority of cancer victims because of personal non-cooperation, is largely responsible for at least 30,000 of the 120,000 deaths from malignancy that annually occur in the United States.

## Cancer's Killing Power

No one will deny that any disease that can slay each year 120,000 persons in this country is a master-killer. Indeed, it occupies the unenviable position of "Public Enemy Number Two," being exceeded in American deaths by heart affections only.

To put it another way, 96 persons out of every 100,000 succumb to cancer each year. Or to make it even a bit more personal, we can say that if the present rates continue, 1 out of every 13 deaths of men from all causes, and 1 out of every 8 deaths of women, will be due to this malady.

An affliction that possesses such deadly power urgently demands prevention and control. Happily in many cases these are at hand. However, to appreciate their significance, we must first know something about the disease itself.

## What Cancer Is

The term "cancer" is a general one, covering a number of conditions. Cancer growths can and do occur in every tissue and organ of the body. Moreover, there are many varieties of these growths possessing different characteristics such as the degree of malignancy, tendency to recurrence, resistance to treatment, rapidity of growth and rapidity or slowness to form secondary tumors. However, *all* malignant tumors, no matter in what part of the body they may be located, are in the cancer classification.

As you know, the substance of all living matter is composed of cells. The human body is an aggregation of cell colonies, so set up as to form its various parts, such as the brain, heart, muscles, etc. A cell is a living organism. In the body, it grows, produces other cells and dies. New cells constantly replace the dead ones; and the cell substances that comprise the body are thus kept in perfect balance. Such cells are well behaved and remain within their physiological, useful and characteristic limitations.

However, there are other cells which act quite differently, and these cells comprise malignant tumors. They are racketeers, hi-jackers, respecting no law and taking orders only from the Supreme Command, which is Premature Death!

Such cells have unlimited capacity for growth and serve no useful purpose whatsoever. By growing wild, this type of cell develops a cancerous tumor which, if left to itself, invariably slays its victim if another cause of death does not intervene. Nothing will stop the fatal cell multiplication except prompt destruction by radiation or surgical treatment. *Incidentally, the average duration of life in untreated cancer is only twenty months.*

Such tumors are part of the subject himself. They arise within him. They are not contagious. They are probably not caused by a germ. Nor is any kind of poison responsible for them.

## Malignancy and Non-Malignancy

The distinction between a malignant and a non-malignant or so-called harmless tumor is that the latter is self-limiting. And while they too may be found in any portion of the body, they seldom prove fatal. They do harm only by mechanical interference with normal functions.

Again, the malignant or cancerous growth has the ability to establish secondary tumors. For example, a cancer of the jaw, untreated, is likely to invade the tissues and filter into the blood stream or lymph. The cancer cells, thus traveling, finally lodge in another portion of the body, and a secondary tumor results. This frequent manifestation of its vicious power is known as *metastasis.* Benign, that is to say, non-cancerous, tumors do not possess it.

## Cancer Classified

There are two main types of cancer, depending upon the kind of tissue in which they are located. Those occurring on the covering of the skin and mucous membranes are known as *carcinoma.* Those arising in the connecting portions of the body, such as the bones, cartilage, tendons, fat, etc., are called *sarcoma.* Thus a cancer of the lip would be *carcinoma*, while a malignant tumor of the bone would be known as *sarcoma.* The former are decidedly more prevalent.

## How Cancer Originates

While science has been spectacular in solving most of the mysteries associated with the causes of disease, it has as yet failed to wrest from nature the reason back of the lawless cell growth which means cancer.

What we most positively do know, however, is that cancer never is cancer at the beginning of its history. Moreover, in regions that can be inspected, such as the mouth, tongue and skin, cancer arises on a pre-existing benign lesion such as a wart, a mole, an ulcer or a polyp-like growth.

It seems to be equally definite that one of the exciting causes of cancer is *chronic irritation.*

For instance, cancer of the mouth may be the result of the chronic irritation of tobacco, ragged dirty teeth and badly fitting dental plates. Cancer of the pelvic organs in women is often caused by chronic irritation, usually resulting from injuries in child-birth. And workers in certain trades, such as in paraffin and tar, where exposure to constant irritation is present, often develop cancer of the skin.

## Cancer Death Percentages

Deaths from cancer may be approximately classified as follows:

36 per cent are caused by cancer of the stomach and liver.
15 per cent are caused by malignancy of the abdomen, including abdominal walls, the intestines and lower intestinal tract.
15 per cent are caused by cancer of the reproductive organs.
10 per cent are caused by breast cancer.
3.5 per cent are caused by cancer of the mouth.
3 per cent are caused by skin cancer.

Many of the cancers of the skin, the mouth and reproductive organs absolutely can be prevented.

## False Ideas Regarding Cancer

There are certain false ideas regarding cancer that need to be exploded:

1. As already mentioned, cancer is not contagious. The victim cannot give it to any other person.

2. Cancer is not a blood disease, though as previously explained, the blood may carry the cells to another part of the body, and a secondary tumor thus be established.

3. Diet is not a cause nor preventive of cancer; vegetarians and meat eaters are equally susceptible.

4. Aluminum cooking utensils do not cause cancer.

5. Cancer does not run in particular families, though cancer susceptibility of particular organs in families appears to be a fact. It is by no means a controlling one, however.

6. Constipation does not cause cancer.

7. Total abstainers are no more safe from cancer than are the steady drinkers.

8. Mental worry or its lack will not influence the development of cancer.

9. Faith-healing is as fatal as neglect. Indeed, when applied to cancer, faith-healing and neglect are synonymous.

10. No age is free from cancer; babies are born with it, and the oldest people can be its victims. However, it is largely a disease of adult life, occurring chiefly between the ages of forty and seventy.

11. And finally, *no warning comes from pain. It should be emphatically impressed upon everyone that, in its early stages and in the precancerous condition, there is no pain or conscious health impairment.* The one exception to this rule is bone cancer.

## The More Usual Forms of Cancer

It might be well to have some information on the various kinds or manifestations of cancer.

*Cancers of the Skin:* As indicated, these usually develop from a mole, nodule, old burn, scar or chronic ulcer. Any shallow, hardened, easily bleeding sore on the face of one beyond middle age or older, and persisting for several months, is likely to be cancer.

*Cancers of the Mouth:* These begin as a small sore on the mucous membrane of the tongue, cheek, gums, lips, palate or floor. A slightly progressing hard ulcer occurring in the mouth or lower lip must be regarded as cancer unless otherwise diagnosed.

*Cancers of the Breast:* These begin as small *painless* lumps. This type of cancer causes nearly 10,000 deaths among women every year. However, men are not immune to this type of cancer. It usually occurs after the age of thirty-five, its prevalence mounting with the increase in age up to fifty-five.

*Cancers of the Pelvic Organs:* Cancers of the pelvic organs in women and lower intestinal tract in men have an insidious beginning, and any unusual bleeding after middle life, in either men or women, calls for immediate investigation by a competent physician. However, these conditions lend themselves to effective treatment, *provided the surgeon's office is reached in the early stages.*

In this connection it can definitely be stated that if every mother had the injuries of child-birth promptly repaired and had the benefit of periodic pelvic inspections after the age of forty, cancers of the child-bearing organs could be largely prevented. It is unfortunately a fact that less than 10 per cent of women in this class avail themselves of this protection.

*Cancers of the Stomach:* Chronic indigestion is the danger signal here. Malignant stomach ulcers would seldom prove fatal if every person over thirty-five years of age would have an x-ray picture of the stomach taken when persistent digestive disturbances occur.

## Danger Signals

This leads us to a generalization of the danger signals:

1. Any lump in the breast or other part of the body.
2. Any persistent sore, particularly on the face or mouth.
3. Any unusual discharge or bleeding from any part of the body, such as vomiting of blood, passage of blood from bowels, or unusual bleeding of any bodily passage, especially after middle age.
4. Chronic indigestion.

To express it another way, the early signs of cancer are:

1. Tumor.
2. Ulcer.
3. Discharge.
4. Bleeding.

While it is true that any one of these symptoms may be caused by a condition other than cancer, this fact is absolutely no excuse for delay in diagnosis. Procrastination in the face of any of these signs is dangerous, and very conceivably may be suicidal.

## Prevention Better Than Cure

With these facts before us, a brief discussion of prevention and control naturally follows.

It has been well said that, "No one ignorant of cancer is safe from it; no one familiar with all aspects of the disease need ever fear it."

Applied knowledge, then, is the powerful weapon against cancer. And, conversely, ignorance and carelessness are cancer's strongest allies.

No criminal in the racketeering world will ever be able to develop a more insidious and seemingly innocent approach than cancer. It frequently has the individual in its fatal grasp before he entertains a suspicion of its presence. Thus cowardly in its attacks, diagnosis is often delayed because of the apparent insignificance of the symptoms.

Nevertheless, it can quite definitely be stated that the more common forms of cancer may be reasonably avoided if proper precautions are invoked. These precautions include:

**First:** Not allowing physical or mechanical irritation to continue.

**Second:** Reporting to a physician the moment any one of the warning signs develops.

As already stated, these are:

1. Any lump in the breast or other part of the body.
2. Any persistent sore, particularly on the face or mouth.
3. Any unusual discharge or bleeding.

**Third:** The yearly physical examination.

As one authority has aptly stated: "This protection from cancer, based on periodic examinations and on reporting to a physician the moment one is warned, is practically the same kind of protection, and in most instances just as complete as is that of vaccination against smallpox, inoculations against typhoid fever, toxin-antitoxin against diphtheria and antitoxin against tetanus."

Let us consider these precautions in their order:

1. Not allowing habits that produce physical or mechanical irritation to continue.

For example, as already stated, chronic irritation of a tobacco wad, or hot pipe stem, ragged dirty teeth and badly fitting dental plates may be forerunners of mouth cancer. These conditions can all be controlled, thus defeating the start and development of a cancerous growth. In this connection, the value of regular visits to a good dentist and of a clean mouth is obvious.

2. Reporting to a physician the moment a symptom of possible cancer manifests itself.

For example, skin cancer is preventable. The first indication of trouble is an *abnormal* spot which is *not* yet cancer. These spots, such as small skin tumors, cysts, old ulcers, small scaly patches, moles or warts of a black, blue, purplish or bluish brown color, are easily seen. It is a significant fact that no fastidious woman dies from cancer of the face because she seeks advice concerning the first blemish.

Again, many cancers of the reproductive organs of women are preventable. The cause of this difficulty, as already stated, may be due to chronic irritation from a primary injury in child-birth. These injuries can be corrected, thus eliminating the possibility of cancer.

And to give a final illustration under this heading, cancer of the breast would be decidedly less baneful if women would seek professional advice immediately upon feeling anything unusual in that region. While there is a 95 per cent probability that the lump is not cancerous, if it so happens to be, the patient has a 70 to 80 per cent chance for cure, if prompt treatment is applied. However, if this same patient should delay even for a few weeks or months the chances for a cure are definitely and pathetically reduced.

3. The periodic physical examination.

The annual health examination is not only a protection against incipient cancer, but represents the great detector of other middle-age killers like diabetes and certain heart ailments which are frequently being unconsciously entertained by the victim. Many thousands of persons now annually dying from cancer, and incidentally from other diseases, could be saved by the adoption of this most rational expedient.

## Diagnosis of Cancer

Diagnosis naturally precedes treatment, *but to be effective, it must be made early.* Indeed, it has been extremely well stated that, "Every case of cancer is an emergency."

Cancers on external parts of the body are comparatively easy to diagnose by observation, though a microscopic examination of a small portion of the tumor, in practice, supplements the surgeon's findings. The microscope will reveal abnormal cell growth when a specimen of the suspected tumor is thus investigated by a trained pathologist.

Cancers in accessible places such as the mouth, and in fact of all of the other bodily openings, are not difficult to diagnose by a trained pathologist. Bits of tissue from such locations are readily obtained, and can thus be examined by the microscope. This examination, as for cancers on external parts of the body, supplements the physician's observations.

On the other hand, some deep cancers present no early symptoms. In these cases, x-ray frequently can be employed as a diagnostic aid. For example, x-ray photographs are used to diagnose tumors of the stomach and the intestinal tract, in connection with check-ups on other associated symptoms. X-ray is also used to discover bone cancer—a comparatively rare manifestation.

*However, the main thing to remember in diagnosis is that if it is to be of real value it must be made early and skilfully.*

*The significance of this statement can be appreciated when it is realized that 80 per cent of the patients who seek advice at cancer clinics are beyond permanent cure.*

## Cancer-phobia

In stating cancer facts and the value of early diagnosis, there is no desire to suggest more than the wisdom of curiosity when warning signs appear. Cancer-phobia, or an unwarranted fear of cancer, is foolish.

In this connection, it is most heartening to know that three-fourths of the cases suspected to be cancer are not such. This fact, however, positively should not dampen the ardor of any individual in his desire to discover what his condition may be, if any warning symptom appears.

Indeed, it is a cancer axiom that, "The earlier and more complete the diagnosis of any cancer, the better the opportunity to treat it."

Not so many months ago, a woman came to a physician's office and displayed a well defined cancer. Said she, "I have noticed this lump for more than a year, but I thought I would wait until it was ripe." It was unfortunately *dead* ripe. Had this self-opinionated and ignorant lady been blessed with alacrity and intelligence she could easily be alive today. Procrastination literally killed her.

## Treatment

There are but two possible methods of treating cancer:

**First:** *Surgery.*

**Second:** *Irradiation*; that is to say, the use of radium or x-ray.

Moreover, to be effective, assuming that the case has been diagnosed sufficiently early, treatment must be in the hands of highly trained and competent surgeons.

Surgery is generally relied upon to remove malignant tumors. This method of treatment is used in nearly two-thirds of all cancers.

Irradiation, by means of x-ray or radium, is used to advantage in fully one-third of the cases. And frequently surgery and irradiation are successfully combined.

Incidentally, a cancer operation is considered to be successful if there is no recurrence at the end of a five-year period.

## False Ideas About Treatment

In this connection, there are almost as many false ideas concerning treatment for cancer as there are about the disease itself. A few of them are worthy of note:

1. Self-medication is a waste of time and frequently is fatal because of the delay involved.
2. Serums, vaccines, colored lights, patent medicines, pastes, salves, diets, so-called mental or religious healing and mechanical manipulations are absolutely valueless.
3. Quacks and their super claims, through false hopes and delayed diagnosis, cause many premature cancer deaths but do not effect cures.

## The Anti-Cancer Movement

No discussion of the cancer problem would be complete without a few statements regarding the anti-cancer movement.

The American Society for the Control of Cancer was organized in 1913. Its activities are mainly educational. Its slogan is, "Fight Cancer with Knowledge." Its propaganda on this disease has been, and will continue to be, invaluable.

The Pennsylvania Cancer Commission, headed by Dr. J. N. Wainwright, is engaged in similar work in this Commonwealth. It definitely affirms the value of cancer education. A comparison of its records in 1919 with those of today beyond doubt indicate that its persistent and consistent spread of knowledge regarding this great and universal scourge, has resulted in a more prompt seeking of medical assistance when cancer symptoms manifest themselves.

Other organizations actively engaged in educating the physician and the laity are the American College of Surgeons, American Medical Society and the respective County Medical Societies of the State Medical Association.

In conclusion, may I state with all possible emphasis that neglect, rather than its ability to kill, great as that may be, is the real secret of cancer's present power.

Life is a beautiful adventure. Resolve *now* not to permit cancer unnecessarily to interrupt it for you!

## DEPARTMENT NEWS

THE BUSY NURSES—In conducting the various functions which are charged to the 139 members of the nursing bureau, an aggregate of 12,914 visits to private residences were made by them in the last four weeks. Included in these visits were investigations relative to employment. Sixty-six patients obtained work through such efforts, 191 were referred to poor boards for direct relief, and 944 were sent to other agencies for help.

During the same period, in their health officer capacity, the nurses placarded 591 homes, released 318 residences from quarantine, and made 123 visits to schools to check up on transmissible disease cases.

It was also reported that defects corrected during the last four weeks through nurses' efforts at clinics and by follow-ups to homes reached the total of 2,975; these represented cases referred to private physicians for attention. No one can say that the nurses are not splendidly on the job!

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
DANGEROUS
Here is a criminal. Leave it alone

**Protection Against Unsafe Water is Real Protection**

RURAL WATER SUPPLIES—Twelve thousand rural water supplies were investigated by the bureau of engineering in the immediate past twelve months. This represents the largest number of requests for this type of service in the Department's history. Undoubtedly the educational reaction to the examination and marking of the individual supplies along the highways has been responsible for the increased interest in the safety of the individual source.

However, even with the present interest on the part of individual farmers and rural dwellers, there are yet many hundreds of citizens in country districts who unnecessarily subject themselves to the possibility of contracting typhoid fever. Apparently this is because they fail to appreciate that no well or spring can be considered safe unless proved so to be by a physical and bacteriological examination. Typhoid fever will therefore unfortunately continue to appear in rural communities until a 100 per cent cooperation on the part of rural dwellers is realized. How about *your* water supply?

PROMPT NARCOTIC REPORTS—During the last month the Department's narcotic drug control bureau issued instructions for the prompt reporting by pharmacists on narcotic sales. This information will enable the Department to determine how the State's narcotics are being legally distributed. In this connection, the Department is using the list secured from the federal authorities at Washington which indicates the number of druggists authorized to deal in narcotics in Pennsylvania. The narcotic bureau is doing an excellent piece of work.

INTERESTING RATES—The birth rate in Pennsylvania has fallen from 21.2 per 1,000 in 1928 to 17.1 in 1932. This represents an all-time low. The decrease in deaths under one year during the same period is spectacular, 72 infants per 1,000 live births dying in 1928 as against 59 dying in 1932.

Based on reports just compiled, the death rate for 1932 is also the lowest in the Department's history, having been reduced from 12.6 per 1,000 population to 10.9. Heart disease continues to lead the death causes in Pennsylvania with a rate of 238.4 per 100,000 population. However, this shows a decrease from the high in 1930 which was 243.6 and a decrease over 1931 which showed 240.6 per 100,000.

Cancer is the second cause of death, though not a close second, the rate being 102.1 per 100,000 population for 1932 as against 104.1 for 1931, thus showing a slight decrease. Nephritis, cerebral hemorrhage, pneumonia and tuberculosis, in the order named, represent the other leading causes of death.

It thus appears from these latest figures that, in spite of the economic crisis, the health of the people has been satisfactorily maintained. Increased health activities, both in the scientific and educational phases, have been largely responsible. A keener appreciation of personal obligation on the part of the individual to control or eliminate habits damaging to health undoubtedly also have been factors.

Incidentally, a reasonable living routine could shoot even these fine records to pieces if thousands of the thoughtless would adopt it.

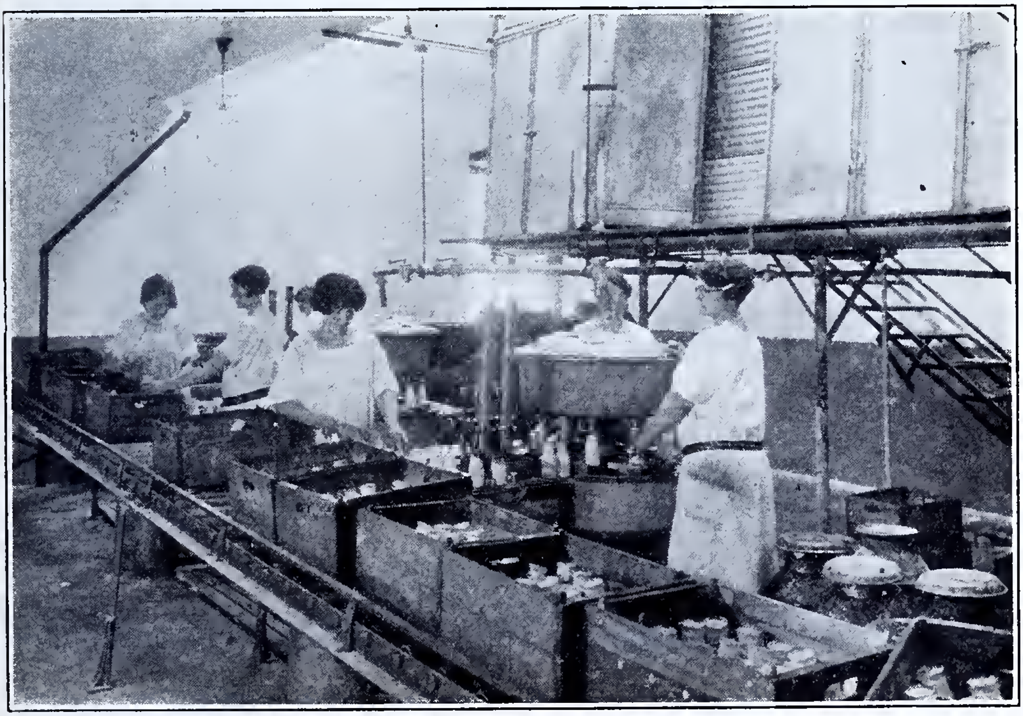
SUPPLY DIVISION POPULAR—Thirteen hundred and eighty requisitions for drugs and supplies were received by the Department during the last month.

There has been a decided increase in the demands for drugs for the tuberculosis and genito-urinary clinics. This has been caused by large numbers of persons receiving free treatment who, because of conditions, are now unable to pay for medical services. A friend in need is a friend indeed!

AMERICAN PUBLIC HEALTH ASSOCIATION SERVICE—The American Public Health Association announces a new type of field service. It involves, first, complete or partial health surveys of states, counties, municipalities or organizations; second, consultant service in relation to specific problems; and third, advice on readjusting health activities or programs to new conditions precipitated by the necessity for extraordinary economy.

Details of this service may be obtained by writing direct to Dr. Carl E. Buck, American Public Health Association, 450 Seventh Avenue, New York City.

MILK SHOWS ITS WORTH—Eight hundred and one thousand children in Pennsylvania had their physical condition definitely improved because of the increased consumption of milk furnished them through the State Emergency Fund and the voluntary funds raised by employes of the State government. This fact became known through reports of preliminary surveys made in the Commonwealth by the Department within the last few weeks.



**Milk is a Friend of Young and Old Alike**

"The value of Pennsylvania's program in dealing with the undernourishment problem has been clearly demonstrated. However, to sustain the gains already made, it is essential that there be no let-down in the work," commented Doctor Appel, Secretary of Health. "Money expended for this purpose has accomplished an excellent result. Present outlays, large as they are, could not be compared to the economic burden which would result if the constructive and preventive health measures were not now being emphasized."

Milk is not only the children's friend, but man's as well. For the average person, a pint a day in some form would be a splendid rule to follow.

CLEAN-UP CAMPAIGN—According to annual custom, the Departments of Health, Welfare, Forests and Waters, and the Bureau of Fire Protection, State Police, again joined in the preparation of material for use during the Clean-Up Week Campaign which was conducted a few weeks ago.

Reports indicate that this drive for sanitation was unusually successful and covered conditions ranging from private homes to forests. Cleanliness is next to Godliness indeed!

CANCER LECTURE TOUR—At the request of the Cancer Commission of the Medical Society of the State of Pennsylvania, the Secretary of Health assigned J. Clarence Funk, director of the bureau of public health education, to prepare and deliver a lecture on cancer before the 10,000 students in the fourteen State Teachers' Colleges throughout Pennsylvania. This work was recently concluded.

Nursing Activities During May-Day Health-Week

MAY-DAY HEALTH-WEEK—The annual May-Day Health-Week activities got off to a flying start a few weeks ago.

Dr. J. Bruce McCreary, deputy secretary of health and director of the bureau of child health, reports that an unusual interest in this work was evidenced throughout the Commonwealth. This month-long celebration represents a tremendous factor in the health conservation of Pennsylvania's children. Hats off to the Department's personnel, to the community groups, and last but by no means least, to the intelligent cooperation of the parents themselves.

A FEDERAL REQUEST—The engineering bureau recently completed the collection of information relative to necessary sanitary projects in Pennsylvania. This information was requested by the United States Public Health Service for emergency use by the federal government. The investigation included water supplies, water treatment, sewerage and sewage treatment.

The cost of these projects, as calculated, amount to more than $56,000,000. It is understood that these facts will be used in connection with the federal unemployment relief program.

BATHING PLACE PERMITS—Applications for permits received by the Department to operate bathing places total approximately 900 to date. Sixty-one inspections of swimming pools, where permits have already been issued, were made in the last three weeks by the bureau of engineering. Bathing beaches for which 28 applications have been filed are now receiving the Department's attention.

The cooperation of owners of both indoor and outdoor pools, as well as those in control of bathing beaches, has resulted in a higher standard of health protection for the users of these recreational facilities.

STATE AND FEDERAL COOPERATION—Public water supplies used by inter-state carriers including railroads, steamship lines and airplane services, are now being examined by the Department. This activity is conducted by agreement with the United States Public Health Service.

The Department is furnishing a certificate of examination for each supply to the federal government. The certificate gives a brief description of the water works involved, and includes the results of the chemical and bacteriological analyses from the samples collected from the respective sources.

This cooperative plan between the federal government and the Department insures to inter-state passengers the safety of drinking water from sources used within this Commonwealth.

PENNSYLVANIA PUBLIC HEALTH ASSOCIATION MEETING—The Ninth Annual Conference of the Pennsylvania Public Health Association, held at the Sterling Hotel, Wilkes-Barre, Pa., on the 16th and 17th of May was unquestionably the finest meeting yet held by this organization.

With respect to both program and social phases, it was quite outstanding; and this is not meant to be interpreted as a reflection on the prior meetings.

Those taking part from the State Department of Health were Secretary of Health, Appel; Deputy Secretary of Health, McCreary; Dr. J. Moore Campbell, director, bureau of communicable diseases; Dr. E. S. Everhart, chief of the venereal disease section, and J. Clarence Funk, director, bureau of public health education.

More than 400 persons interested in public health attended the two day's sessions.

# Vital Statistics Comment

## TUBERCULOSIS MORTALITY IN 1932

**Florence Hardy**
*Assistant Statistician*

THERE were 5,364 deaths from tuberculosis in Pennsylvania in 1932. This total, as well as the death rate of 54.6 per 100,000 population, is the lowest ever registered in the State. The tuberculosis deaths which occurred last year are less than half the number recorded in 1906. A quarter of a century ago this disease, then the leading cause of death in the Commonwealth, constituted 9.3 per cent of all deaths. At the present time tuberculosis, the sixth leading cause, composes less than 5 per cent of the total mortality.

Of the 5,364 deaths from tuberculosis in Pennsylvania in 1932, the greatest number was in the ten-year age group, 20–29 years, inclusive. Over a fifth of the victims of this disease were between these ages. A total of 3,404 deaths or 64 per cent of the entire mortality occurred in persons under 45 years of age. In 1932, there were 190 deaths among children of pre-school ages, 163 deaths in children of 5–14 years, and 358 in the high school group, 15–19 years. In the advanced ages, tuberculosis proved fatal to 358 persons between the ages of 65 and 74 years, and to 123 over 75 years old.

There were 750 more male deaths from tuberculosis last year than female. However, in the ages under 30, the female deaths exceed the male. While the greatest number of female deaths from tuberculosis occurs between the ages of 20 and 29 years, the highest mortality among males is between 35 and 44 years. Over 35 years of age, the male deaths from this disorder are nearly twice the female fatalities.

A total of 1,024 Negro deaths from tuberculosis was recorded in the State in 1932. This number is equivalent to approximately one-fifth of the total mortality from the disease. Whereas, the deaths of white persons under 20 years of age make up 12 per cent of the tuberculosis mortality of that color, the deaths of Negroes of the same ages comprise 18 per cent of the Negro fatalities.

In the following table are given the tuberculosis deaths in Philadelphia and Pittsburgh in 1932 by age, sex and color.

## TUBERCULOSIS (ALL FORMS), 1932

| *Age Periods* | *Philadelphia* | | | | | *Pittsburgh* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Total* | *Male* | *Fe-male* | *White* | *Col-ored* | *Total* | *Male* | *Fe-male* | *White* | *Col-ored* |
| TOTAL | 1,366 | 785 | 581 | 862 | 504 | 374 | 208 | 166 | 307 | 67 |
| Under 1 year | 25 | 15 | 10 | 20 | 5 | 5 | 3 | 2 | 3 | 2 |
| 1 year | 16 | 6 | 10 | 11 | 5 | 10 | 4 | 6 | 8 | 2 |
| 2 years | 8 | 5 | 3 | 5 | 3 | 6 | 1 | 5 | 6 | 0 |
| 3 years | 4 | 3 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| 4 years | 4 | 2 | 2 | 1 | 3 | 3 | 2 | 1 | 1 | 2 |
| 5–9 years | 14 | 8 | 6 | 4 | 10 | 7 | 3 | 4 | 4 | 3 |
| 10–14 years | 20 | 7 | 13 | 7 | 13 | 9 | 3 | 6 | 3 | 6 |
| 15–19 years | 89 | 39 | 50 | 40 | 49 | 29 | 8 | 21 | 23 | 6 |
| 20–24 years | 190 | 74 | 116 | 107 | 83 | 40 | 13 | 27 | 37 | 3 |
| 25–29 years | 168 | 73 | 95 | 88 | 80 | 35 | 16 | 19 | 28 | 7 |
| 30–34 years | 137 | 81 | 56 | 80 | 57 | 40 | 26 | 14 | 29 | 11 |
| 35–44 years | 254 | 155 | 99 | 163 | 91 | 67 | 45 | 22 | 56 | 11 |
| 45–54 years | 207 | 150 | 57 | 144 | 63 | 61 | 45 | 16 | 52 | 9 |
| 55–64 years | 142 | 111 | 31 | 112 | 30 | 33 | 22 | 11 | 29 | 4 |
| 65–74 years | 77 | 49 | 28 | 70 | 7 | 19 | 13 | 6 | 19 | 0 |
| 75 years | 11 | 7 | 4 | 8 | 3 | 8 | 3 | 5 | 8 | 0 |

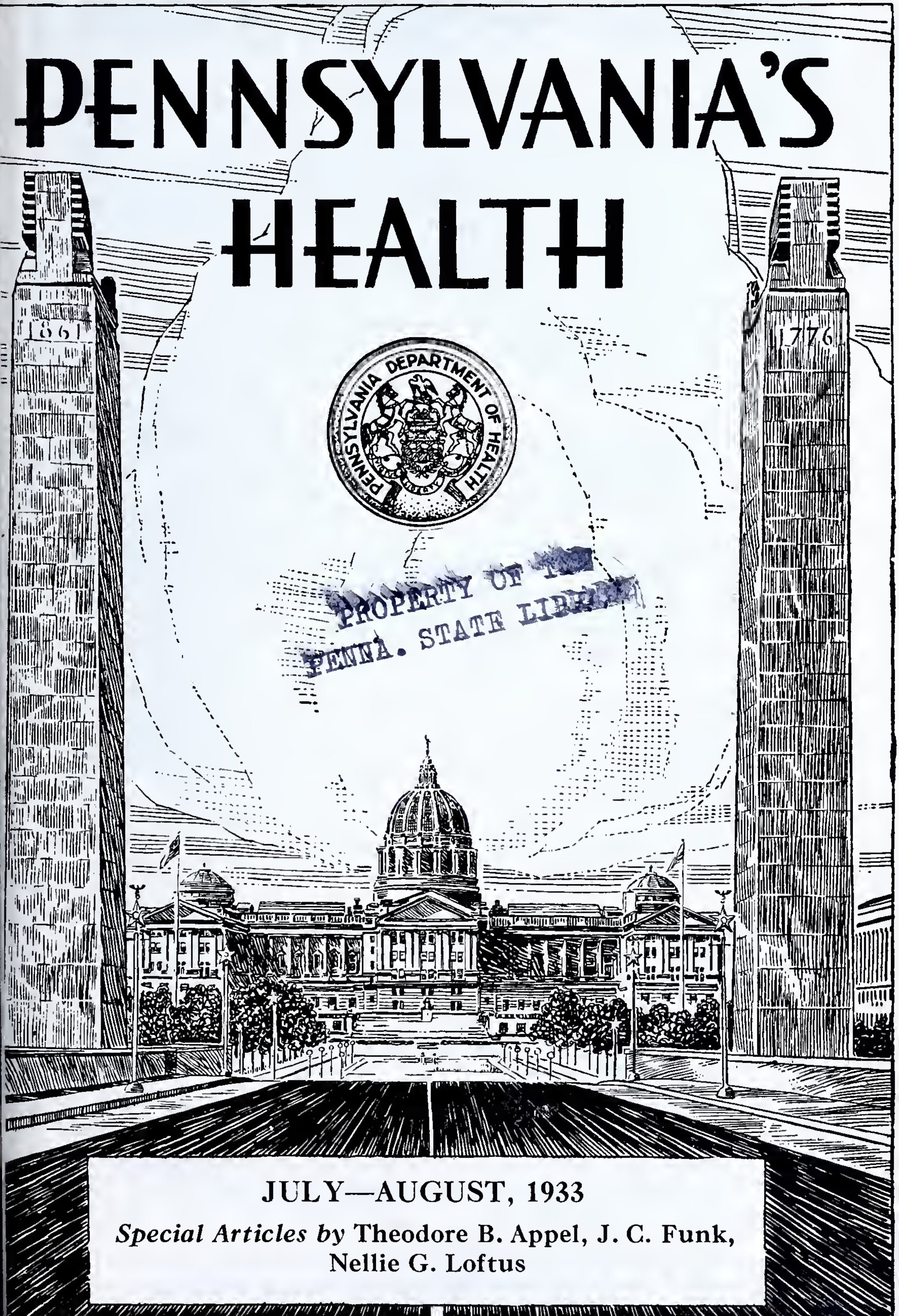
The reduction in the mortality from this disease is apparent in comparing the 1932 tuberculosis death rates of these two cities with those of 1910.

## TUBERCULOSIS

| | *1910* | | *1932* | |
|---|---|---|---|---|
| | *Deaths* | *Death Rates** | *Deaths* | *Death Rates** |
| Philadelphia | 3,371 | 216.8 | 1,366 | 69.0 |
| Pittsburgh | 695 | 129.9 | 374 | 54.4 |

*Rates are per 100,000 population.

# PENNSYLVANIA'S HEALTH



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*Special Articles by* Theodore B. Appel, J. C. Funk,
Nellie G. Loftus

# PENNSYLVANIA DEPARTMENT OF HEALTH

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*Executive Office*

Secretary of Health—THEODORE B. APPEL, M. D.

Sanatoria and State Clinics:
1. Mont Alto Sanatorium—Medical Director, R. H. McCutcheon, M. D.
2. Cresson Sanatorium—Medical Director, T. H. A. Stites, M. D.
3. Hamburg Sanatorium—Medical Director, H. A. Gorman, M. D.
4. State Hospital for Crippled Children—Francis S. Chambers, M. D.

Deputy Secretary of Health—J. BRUCE McCREARY, M. D.

Child Health—School Control
1. Field Supervision—C. W. Sheldon, M. D.
2. School Sanitation—
3. Pre-School—Mary Riggs Noble, M. D.

*Bureaus*

Communicable Diseases ........................J. Moore Campbell, M. D.
1. Epidemiologist—Samuel J. Dickey, M. D.
2. Genito-Urinary Diseases—Edgar S. Everhart, M. D.
3. Restaurant Hygiene—Howard M. Haines
4. Tuberculosis—John B. Critchfield, M. D.

Sanitary Engineering ........................................W. L. Stevenson
1. Water Works and Sewerage—H. E. Moses
2. Roadside Water Supplies—Henry P. Drake
3. Industrial Wastes—F. E. Daniels
4. Housing—H. F. Bronson
5. Nuisances—D. V. Ness

Milk Control ..............................................Robert F. Brinton
Nursing ..........................................Mrs. Mary S. Evans, R. N.
Public Health Education ..................................J. Clarence Funk
Laboratories ..........................................John L. Laird, M. D.
Drug Control ...............................................Harold V. Smith
Bureau of Inspection ....................................George A. Strine
Vital Statistics ....................................Emlyn Jones, M. D.
Finance ......................................................C. T. Williams
1. Accounts—E. J. MacNamara
2. Supplies—Roy G. Miller

*Advisory Health Board*

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# Pennsylvania's Health

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J. CLARENCE FUNK, Sc. D., Editor

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# Editorial

## "BETTER AND BETTER"

A SPIRIT of optimism now prevails throughout the country. The desire for better times manifests itself in a very positive and constructive hopefulness. And this situation, as in other depression periods, emphasizes the amazing resiliency of the American spirit. That spirit may get down but most emphatically it has never been out.

This great characteristic of tenacity, in which has always been involved the fundamental virtue of patience, is now reaping its rewards in the form of increased employment and in more vigorous commerce.

Indeed, "Better and Better" is the slogan of the moment. It expresses today's attitude and the positive though slow business uptrend. No doubt, in a few short years, it will be difficult to realize that such a period through which we are passing ever existed. Prosperity, even in a limited form, automatically will banish the acute recollection of the darker days.

However, while we are all mentally, and some actually, bouncing out of the depression from a ledger standpoint, there yet remains another vital consideration if the benefits of the post-panic period are to be realized to their fullest extent. That consideration is personal health.

In fact, there has not been a time for many years when a rational and intelligent conception of the individual's obligation toward his well-being is more needed than it is today. The strain, fears and frequently the downright privations of the recent past have left their marks upon the majority of us. To erase them will require a sensible application of nature's fundamental demands.

Detouring devitalizing habits, and reasonably disciplining one's self in the dictates of nature are quite as essential and equally good business as is the balancing of the other departments of life. Will-power certainly must come into play to do this. But it has been demonstrated that we Americans possess this attribute and can apply it when actually required.

Therefore, "Better and Better" must not only mean dollars and cents prosperity but also more vitality and more joy of life. Boom days may come again but they will be lacking much if abundant vigor is not among the assets.

*J. C. F.*

# HEALTH AND THE DEPRESSION*

**Theodore B. Appel, M. D.**
*Secretary of Health*

THROUGHOUT its age-long history the human race has feared three things, and for generation after generation men have prayed to be delivered from war, pestilence, and famine. The progress of humanity in the scale of civilization is not marked by a steady evolution. From time to time the surge of progress is interrupted by more or less world-wide cataclysms which seem temporarily at least to have not only retarded that progress but actually to have thrown back humanity to a lower plane from which, after a longer or shorter time of readjustment, the struggle upward must begin again. The direction of that upward struggle is usually changed. These periods of progress, disaster and readjustment are never short in time. Nature does not do things that way. The international and interracial jealousies existing since the Napoleonic Wars and the French disaster of Sedan culminated in the explosion in 1914 when practically the whole world went to war, and the repercussions of that conflict have not yet been completed.

We must, therefore, view our present economic crisis or depression simply as a phase of the evolutionary period of readjustment. No one today can accurately predict the final outcome or picture the type of social and economic era which will eventually follow. But it can be reasonably assumed that that era will be radically different from any preceding experience—it has always been so and that seems to be in accord with Nature's laws.

But what has all this to do with Public Health? I think a great deal, for if we accept the view that we are going through such a period of evolutionary change it enables us to have a clearer view of our problems as affected by this period of depression. If we recognize that this depression is not a mere phase, to be followed by conditions essentially the same as those of the last decade, but that in all probability recovery, so-called, may be slow and lead to a definite readjustment of social and economic relations, we will be better prepared to face that future with its possible changes. In a sense we are now at war, but without pestilence and without, generally at least, famine. Even the World War was robbed of some of its horrors by the application of the principles of preventive medicine. Again, the number of those dying from disease, in spite of a world-wide epidemic of influenza, was at a minimum compared with previous conflicts.

In this country and this State we have been faced for the last three or four years with an economic depression associated with wide-spread unemployment and privation, but we have had neither pestilence nor famine. To this extent, at least, the relief measures put into effect have been fairly successful. But from the public health standpoint the end is not yet, and we must as far as possible discount the future dangers.

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*Address delivered at the Ninth Annual Meeting of the Pennsylvania Public Health Association.

## Immediate Effects of the Depression

The question of the effects of the present economic depression on public health is two-fold. First, our active forces and our munitions of defense have been sadly depleted. Public funds, the sources from which are drawn the support of the official agencies, State and municipal, are lessened everywhere. Appropriations are cut, personnel is discharged, bureaus generally and even departments in some States have been eliminated, and official health activities must be limited to the real fundamentals, with no opportunity for research or expansion. Besides this, the great health and welfare agencies depending upon voluntary subscription for their support are in similarly straitened circumstances, making closer cooperation and conservation of agencies all the more necessary.

On the other hand, what has been the effect of this period of depression on the public health? One would expect, with nearly one-eighth* of our population out of work, with reserves long exhausted, that the country would be faced with increased sickness, prevalence of epidemic diseases, and a mounting mortality. And yet, strange to say, on the face of our statistical records, the reverse seems to be the case. Our state-wide mortality rate has steadily decreased from 12.3 in 1929, to 11. 6 in 1930, to 11.5 in 1931, and to 11.1 in 1932. We have had no wide-spread epidemics, but we have noticed in 1931 and 1932 a slight but definite increase in tuberculosis and in the case rate mortality of certain diseases such as typhoid and diphtheria. However, the totals have been so small as to prohibit drawing anything but inferential conclusions, except that there has been a lessening of vital resistance.

It is difficult to account for this paradox but it must be remembered that there are other phases in public health inferentially of more importance than mere statistics. Therefore, it is very proper under the present abnormal conditions to take full stock of our situation and to determine whether or not any new factors are present in the public health field which must be taken into consideration. The old ones we know—the control of communicable diseases, tuberculosis, the protection of women in childbirth, the care of the growing child, the threatening increase of cancer, and the greater prevalence of the degenerative diseases of middle life. Have these changed in their relativity or have new ones been interjected?

## Potential Dangers

From our knowledge of the Commonwealth we do not believe that many new problems will present themselves, but we do believe that certain of our present ones must receive more attention, that increased emphasis must be placed on the care of the child, of the mother, and on the tuberculosis question.

The application of the truths of preventive medicine has done wonders for the well-being of society. The methods of control of the infectious diseases is generally recognized, the importance of pure water and safe milk is known, and in great part epidemics of water or milk-borne diseases are rare indeed. Here the actual causes of the diseases are known and the war of prevention has been carried on along well-recognized lines. But in recent years another feature of preventive medicine has come to the fore and with each year becomes of greater import. We know, to an extent, how to control contagion by segregation and quarantine, how to prevent smallpox by vaccination, how to immunize against diphtheria, typhoid and a few other diseases, how to prevent the dangers of "the second summer" by cleanliness and proper feeding. In these ways the dangers faced by the children have been lessened, and the expectation of life has increased in 25 years from 40 to 51, but people do not live longer.

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*Estimate as of May, 1933.

Gradually in the study of the fatal conditions which confront those over 45 or 50, it became apparent that the factors present in the individual that made him an easy victim to heart disease, apoplexy, kidney disease, and the like, really dated back to early childhood and that the repeated infections of a minor type to which children are prone, were really of importance in view of their relation to the health of the adult. This is particularly true of tuberculosis and has resulted in increased interest and care of the child.

In view of these facts since the inception of the so-called period of depression, health officials throughout the country have been increasingly aware of the potential danger to the health of the oncoming generation.

Those of us in state health work are not unmindful of it, and look with apprehension upon the rapidly increasing degenerative processes which have been sapping the vitality of the people of Pennsylvania, as well as elsewhere. Especially is this true regarding the children of the Commonwealth. A careful check-up in the beginning of the current school year showed an average increase of from 20 per cent to 30 per cent in malnutrition among our public school children, to say nothing of the pre-school children or those in parochial and private schools. By actual count there were in the fall in our public schools more than a half million children underfed, undernourished, below par, and suffering from lack of care, with clothing and fuel insufficient to keep them comfortable.

What Pennsylvania can expect, unless conditions are remedied soon, does not make a pleasant picture. Furthermore, children born during this economic crisis by undernourished mothers driven to despair and worry as to their future, will be handicapped from the start. Stunted physically and mentally, they will be potential victims of degenerative diseases and lowered mental capacity.

## Malnutrition

Malnutrition is not a disease, but a condition which subjects its victims to disease, acute, chronic and contagious, to which a very large percentage will succumb if by any chance they are infected.

Malnutrition is not always due to lack of food, but often due to improper food. In normal times our records show a higher percentage of malnutrition in rural areas where food is abundant, than in urban centers where food supplies are limited. Overwork and fatigue, as well as worry, are most potential factors in the development of this distressing condition. It is important to bear in mind the necessity of differentiating between the malnourished child and the undernourished child, and to apply our corrective efforts intelligently as the particular need demands. A malnourished child is one not properly fed, and an undernourished child is one for whom insufficient food has been provided. The former is found in all classes of society, regardless of economic conditions. The latter is found ordinarily only in the more destitute classes.

Only a kind Providence has given us a winter less severe than usual and comparatively free from epidemic sicknesses. What an epidemic of virulent scarlet fever or influenza, or diphtheria or cerebrospinal meningitis would have done, God alone knows! Instead of the death rates being lower in those particular diseases, their usually high rates would have been more than doubled because of the lowered resistance in these malnourished children. Even in remote rural districts, which ordinarily are not affected by economic changes, there has been a marked increase in the ever present menace to the mental and physical development of children.

## The Pre-School Children

Three groups of pre-school children have been carefully examined in our rural health cars by trained pediatricians, employed by the State on part time. These rural cars operate in the remote sections where physicians and hospitals in many instances are inaccessible. In 1930, 1,463 out of 8,189 children were found not only underweight, but malnourished. This was 18 per cent. In 1931, 1,611 out of 8,872 or 18 per cent were found malnourished. In 1932, 2,939 out of a group of 9,541 or 31 per cent were malnourished and decidedly below par. This was an increase of 13 per cent over the two previous years.

**Early Investigation and Correction of Defects Represent One of the Secrets of Vital Health in Later Years**

An under-par condition in a very young child is now recognized as of very serious import. It may be said that even if the pre-school years have been passed with a fair show of health and the child's physical well-being is assailed after the sixth year, he is better able to withstand it and make a recovery.

If during the earlier years, physical defects have stealthily taken hold, and the silent symptomless condition has worked its slow harm over a considerable period of time, the child is marked for eventual physical defeat; and if the load of his disabilities be aggravated by the onset of grave economic disaster, which changes his food and care for the worse, the unhappy outcome is hastened.

The earlier the inroads upon the child's resistance, the more the danger of permanent damage. The extremes of age have ever been least able to withstand the assaults of physical ills.

The harvest of failing to keep the little child in good physical condition begins to be reaped when he enters school with something less fit than the body and mind he ought to have, and thus makes a drag on the wheels of the whole costly system. He readily joins the already large army of can't-keep-ups; and the man he later becomes was settled physically and mentally back in his pre-school years.

The records of the last two years indicate that the lack of food and poor diet has caused an alarming increase in the number of school children in Pennsylvania in the retarded class who show signs of malnutrition. This group of children will add a considerable number to those who are already behind their grade in school due to two factors: First, their inability to absorb knowledge; second, their absence from school, due to common colds and infectious diseases which under normal conditions they would be able to withstand.

This situation presents an economic condition to be reckoned with. The most important and far-reaching effect, however, is on their future development which will be seriously retarded, and in numerous cases will weaken their resistance to tuberculosis and aggravate other defects.

## Diet as Well as Food to be Considered

The necessity of providing food for this group is well understood by the majority of people, but we must not lose sight of the necessity of providing the proper diet. Growing children cannot be considered in the same light as adults, and unless the proper diet is provided the bone structure of the body will be weakened, resistance to disease will be lowered, nerves will become unsteady, and in fact the whole body will suffer.

The causes of malnutrition have been determined as follows: Inheritance, past illness, present defects or disease, bad hygiene and improper diet, social factors and environment.

During the past two years the rate of underweights has increased in such a proportion that we are led to believe that bad hygiene and improper diet are the main factors to which we can attribute this increase.

It has been found in the majority of cases that the underweight children have received too little food; this has been due to two causes—first, poverty, and then bad buying. Both factors are caused by the present economic condition.

This condition is not only alarming from a statistical standpoint, but is a warning sign for the future. This group of underweight and malnourished children will provide the feeders for our state sanatoria which are now overcrowded. It will undoubtedly result in an increase of dental defects and increase the number of diseased tonsils and adenoids due to the lack of proper nourishment. Moreover, we can naturally expect a large increase in the prevailing diseases leaving serious after-effects, due to the inability of this large group to store up the necessary resistance which would normally come to their assistance in fighting off the coming infectious diseases.

## A Warning

The Department of Health therefore sounds the warning and calls to the attention of the Commonwealth and the local districts that these children must not only be supplied with sufficient food, but that a proper diet must be provided in order that their physical condition can be improved. This problem must be attacked at once; it cannot be put off any longer. If neglected, Pennsylvania will be sure that the next generation of citizens will show a deterioration as far as their physical condition and lack of initiative are concerned, and will produce more sick and ailing people than our hospitals and sanatoria can possibly accommodate.

## The Department's Part

At the Governor's request, the Department of Health has undertaken to examine from ten to fifteen thousand children between the ages of two and ten years, of families fed by Community Markets, in order to determine whether the balanced rations supplied by the Community Market is adequate for growth and development. The plan of the Department includes visits to each place at intervals of three to four months—the same physicians and nurses repeating the work in each instance. It is too early to make positive statements, but one community has now had its second visit and the findings have been partially tabulated. Approximately 900 children were examined on the first visit. Of this number, 627 returned for the second examination. Only two children had failed to gain in weight or height. Sixty-three failed to gain in weight but grew in height. Three hundred and thirty-eight of the children gained from two to three pounds. One of the most favorable things that this work accomplished in each place so far visited was getting the defects corrected in the children examined, not because the community was asked by the Department to do it, but because the community itself was interested enough to undertake the accomplishment of these corrections. With the foregoing facts relative to malnutrition in mind, a resume of the present status of tuberculosis in Pennsylvania is in order.

## Tuberculosis

There is little doubt that present economic conditions, with the increase in undernourishment and lowered resistance, will bring in its train higher morbidity and higher mortality rates for tuberculosis.

A casual glance at the death rates from year to year gives the impression, and it is the belief of many, that tuberculosis has been brought under control, but those who are actually engaged in the fight know that this is not the case. In general, tuberculosis in this State, as well as in the whole country, is at present more acute than in the immediate past.

The depression now existing has not as yet increased the mortality rates, but there has been a decided increase in morbidity rates since January 1st of this year. Malnutrition in children has increased rapidly and it is certainly true that as malnutrition continues to exist a larger proportion of children infected with tubercle bacilli will develop the active disease.

The process is slow sometimes and we will continue to see the results for years to come. These children as they reach young adult life will constitute a large group most likely to succumb to tuberculosis.

In our 89 tuberculosis clinics throughout the State, there has been an increase of 20 per cent in attendance in two years. For 1929–1930–1931, the yearly admissions to our three state sanatoria for tuberculosis averaged 3,018, with average waiting lists for the three years of 770 in 1929, 911 in 1930, and 1,331 in 1931. From January 1, 1932, to January 1, 1933, there have been admitted to these institutions 3,001 patients, with a waiting list of 1,322 at this date. This waiting list reached a total of 1,610 on August 1st last year. The admission of approximately 400 patients to new units reduced the list to the present number—1,322. The total bed capacity is 2,324, with an additional 100 beds for children during the three summer months.

**The Children at the Sanatorium Get Good Food and Plenty of It**

In spite of the fact that last year we had a lower death rate in Pennsylvania than in the 26 years of state registration; in spite of the fact that tuberculosis no longer heads the list of causes of death; and in spite of the fact that the public has come to think of tuberculosis as a controlled disease, we must continually drive home to this same public the fact that tuberculosis continues to kill more people under 35 years of age than does any other disease.

With the increase in malnutrition so apparent, an effort should be made in every community to secure an early diagnosis in school children, especially the Junior High and High Schools, before the disease is manifest by symptoms or physical findings. The diagnosis can, in a large percentage of cases, be made by the tuberculin (Manteaux) test and x-ray findings. In many communities this is being done with marked success, and it is enlightening to know how many active, as well as latent cases, are being found.

The public and parochial schools are certainly important groups to study in the control of tuberculosis. The close contact and intimate association of the pupils surely lend themselves to the spreading of infection.

The high-pressure living of school children with the heavy curriculum of today, coupled with the social demands and athletic activities, is burning up our children and making of them potential victims of tuberculosis and heart disease.

As a final statement about tuberculosis, the State Department of Health fully expects an increase in tuberculosis extending over a number of years following the present economic depression. The number of years over which this period will last is dependent upon the rapidity with which the country resumes a normal living condition. The malnourished children of today will not be safe from tuberculosis until they have reached the age of 35.

Taking all these things into consideration, admitting that so far at least as mortality and morbidity statistics are concerned, Pennsylvania from the public health standpoint has been very fortunate, it must be apparent that more effective health work must be done for the children if society is to be in shape to meet the future. And probably much more has been accomplished than people generally recognize.

## Relief Measures

Throughout the State relief measures have been active. The resources of the Commonwealth have been expended at an unprecedented rate—approximately $6,000,000 per month. Over $3,000,000 has been spent since last September to supply milk to the 500,000 undernourished children of the unemployed—the latter without any overhead, our state nurses being used as county agents. While it is too early accurately to estimate what has been accomplished and no state-wide survey has been attempted, much less completed, I feel justified in stating that the menace of undernourishment and malnutrition has been met, and that as a rule throughout Pennsylvania the physical condition of the children at least is better than it was in September. Moreover, we can prophesy safely that the next medical inspection of the school children of the State will tell more of the story than that already presented to us. Local reports from our nurses and from school teachers from all sections indicate a definite gain in health and weight among the children and, what is of greater significance, a better aptitude for learning among the children than a year ago.

We all realize the economic conditions this country is fighting at this time. It has been said that we are at war—that we are engaged in a combat to determine whether or not society as we see it and civilization itself shall endure. This combat is by no means settled and will go on into the future. Rehabilitation comes slowly, and the oncoming generation must shoulder the burden. So the importance to society of the children now with us and of those born in the near future cannot be over-estimated—on them rests the hope for the future. Consequently it is part of our battle at present to see that these children have the best opportunities that can be given them, so that when it is their time to take up the fight they will not be handicapped.

# The Health Gnome Says—

"Happy Days are Here Again"
Was a song of years ago;
But it's cheerful theme is apt once more—
As you and I well know.

True, gloom and dread and awful fear
Of black depression days,
Are fast becoming memories
In a thousand different ways.

And fine and splendid as this be,
One fact should be most plain;
That good times and prosperity
Need health for lasting gain.

So in our struggle to recoup
The money that took wings,
It will be wise to strive somewhat
For health and allied things.

Indeed, vim, vigor and vitality
Top the list of wealth;
And real prosperity will never be
If we lack this main thing—health.

*J. C. F.*

# PROBLEMS IN HEALTH EDUCATION*

**J. Clarence Funk, Sc. D.**
*Director, Bureau Public Health Education*

HEALTH education is a comparatively modern term. In fact, as late as 1905 mention of such a thing, in a popular sense, would have failed to register upon the average brain. Doctors were on hand to make people well when they became sick. And illness was a most natural affliction, the prevention of which was largely in the hands of providence and not at all in the hands of the individual. Again, if one died prematurely that, too, was sad. But such things were always happening. And it was God's will!

This sense of resignation no longer exists. In fact, people are mildly interested where disease is concerned. However, their interest is likely to be an academic affair unless, perchance, there are children in the family. In which case it becomes rationally objective.

Which indicates that education in matters of personal disease prevention has as yet a very long way to travel to be of general benefit. And in making this statement there is no desire to be particularly critical of either health educators or the objects of their concern. Human nature being what it is, makes the job an extremely difficult one for those on the giving, as well as those on the receiving, end of the proposition.

Or to put it another way. When the sun shines one thinks little of the rain. Reasonably good health being man's natural condition, it is exceedingly difficult to develop in him the rainy day spirit. And this goes for all ages. Besides, barring violence, accident or serious disease, the average young man and young woman find themselves possessors of apparently illimitable vitality, and spend accordingly with little or no evident consequences.

Youth, therefore, simply cannot grasp the idea that Mother Nature, unbelievably tolerant to excesses and devitalizing habits, will at some time exact her price, if one's ways are not amended. So it spends and spends and spends.

And in this spending orgy it has alluring inspiration. For example, it is implored—along with the rest of us—to drink five cups of coffee daily. In fact, it is the healthy thing to do, provided it is unmistakably fresh! Again, full-page magazine spreads and multi-chromatic billboards at every mile or so seductively urge girl and boy alike (and others) to become devotees of Lady Nicotine by way of the inhaled cigarette. And social custom, if no longer approving, certainly yet countenances the too copious indulgence in synthetic gin and the night life associated with that and similar unconstitutional libations. Sleep, as a consequence, is somewhat of an outlaw and bad liquor maintains its respectability.

In these ways, and many others too numerous to mention, young people step on the gas habitually, daily slap nature in the face—and apparently get away with it. It is therefore scarcely reasonable to expect these glorious spendthrifts to turn a ready ear to health conservation and disease prevention. For them the sun not only shines but they are literally drenched in it.

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*Paper read at the Ninth Annual Meeting of the Pennsylvania Public Health Association.

## A Reasonable Attitude Toward Health

In making these remarks, there is no desire to convey the impression that an arbitrary puritanism is advocated. Any reasonable person must frankly admit that individual tolerances are sometimes actually remarkable. And this, whether one be young, middle-aged, or older.

The point to be emphasized, however, is that by far the great majority of persons, young and otherwise, are not sufficiently interested in their well-being to discover what they can stand and what they cannot endure. And this, very frequently, in the face of unmistakable reactions. This is the situation with which health educators are unfortunately confronted.

In itself this obstacle is a tremendous one. But to it must be added another equally high hurdle in the form of commercial health exploitation. This activity is gigantic, penetrating and general in the United States. A few of the more prominent manifestations should be considered.

## High-Pressure Misinformation

As stated, by way of the printed and broadcast advertisement, the American citizen is urged to purchase this, consume that, and otherwise guide his commercial actions, not because of any unusual quality in the object of his transactions, but because it is healthy to do so. The sale urge is preeminently and exclusively one of health.

This high-pressure, ubiquitous and frequently literary and artistic appeal is largely responsible for the previously indicated academic interest by adults in personal health. It does good only in that it puts money into circulation. Net gains in health, or indeed in the prevention of disease, are difficult to discover except in isolated cases.

But the undiscriminating public is also the target of a group of suave and tongue-loose gentlemen of personality who orient their enthralled listeners on the subject of diet and slenderization—two subjects especially intriguing to the feminine ear. These self-styled experts boldly and falsely admitting European degrees and years of professional experience, urge their listeners to purchase vegetable salt and many other products of their food factories that are guaranteed to recapture youth, electrolycize it, and thus forever and a day banish even the idea of old age and its attendant decrepitude. And all this, if you please, on the basis of 1,000 per cent minimum profit on the articles vended!

Half-truths, being thus glibly presented, naturally dig in; and pocketbooks just as naturally loosen up. Health remains in status quo surrounded, however, by false notions which eventually may make trouble.

## Quacks

Again, quacks now working somewhat under cover, thanks to legislation, spread falsehoods and unreasoning fear. And even the medicine faker, with his one-man minstrel show and miraculous cure-all oil, still reaps a golden harvest in more remote communities, to the end that false hopes and delayed diagnosis frequently work havoc and death.

And as if this were not enough, the urban citizen is surrounded with practitioners of various cults, the outstanding virtue of which is the brazenness of their illogic and its ready absorption by the intelligentsia type of person whose "superior" mentality makes understandable wholly absurd doctrines.

Finally, faith-healing, in the form of religion, negates the existence of illness, and thus makes many well who are not sick, and slays many who are ill in fact.

Indifference and misinformation are indeed colossal barriers for legitimate health education to overcome. However, the line-up against the enemy is a formidable one. And by the force of repetition it is slowly but surely gaining in power and in results.

Self-Diagnosis and Self-Treatment are Common Faults

## Orthodox Health Education

Health education in its ethical and professional sense commands many efficient weapons. The shock force, so to speak, are public health officials. By legislation, by regulations, by public addresses, by demonstrations at clinics and by the printed and radioed word, this comparatively small group of highly specialized individuals are forever spreading the gospel of health and individual health concern.

The result is that today, except in isolated cases, Pennsylvanians are reasonably aware, as well as convinced, of the advantages of compulsory vaccination against smallpox, the virtue of the toxin-antitoxin test and the potency of promptly administered antitoxin, the efficacy of quarantine, the value of safe milk and water and the protection associated with adequate sewerage facilities.

Following closely on the heels of this regiment are the public health nurses, the more highly trained social workers and a minority of practicing physicians who possess a highly developed public health consciousness.

The next group, representing a small complement, are the lay and official writers who successfully invade the popular magazines and thus are able to regale all and sundry on many phases of health and disease-prevention. A similar group popularizes health facts in book form. And an even yet more restricted number syndicate daily and weekly health talks which reach millions through the press.

Then, too, insurance companies are constantly presenting health facts in extremely palatable form. And the same may be said of the American Medical Association with its magazine, *Hygiea.* Moreover, Health Foundations correlate, compile, digest and circulate authentic public health information in an easily absorbed and unusually interesting manner.

And finally youth, unresponsive though it be, gets basic health facts in school and college, in recreational camps and through military training. This, generally speaking, completes the health educational armament and makes a rather impressive array.

## Professional Publicity

It may be of interest to this group to have a more detailed account of the work of the State Health Department's Bureau of Public Health Education of which the speaker is the Director.

Recognizing that thousands of citizens rely solely upon their newspaper for information, the Bureau prepares a Weekly Health Talk and a Dental Health Statement. In preparing this material, every effort has been made to drive home the fundamental facts involved in personal health cooperation. Controversial subjects are entirely omitted, medical parlance is reduced to a minimum and for the most part avoided, and treatment advice for obvious reasons is left to the practicing physician.

Questionnaires forwarded to editors several months ago established the fact that 620 Pennsylvania newspapers, including many dailies, regularly use the Weekly Health Talk, and in addition print the Dental Statement. The former feature has been running consistently for eight years, while the dental information is now in its third year.

Incidentally, the Dental Talk, which formerly appeared over the name of the Chief of the Dental Section, and now without any name, was the pioneer of its kind in the United States. It is copied by numerous jurisdictions, broadcast over a number of stations inside and outside Pennsylvania and is translated into Spanish and circulated with permission in Mexico and other central American countries.

In these Talks an attempt is made to develop the so-called reader-interest. It was very early discovered that the sustained popularity of this type of material depended largely upon its sugar-coating and non-professional character.

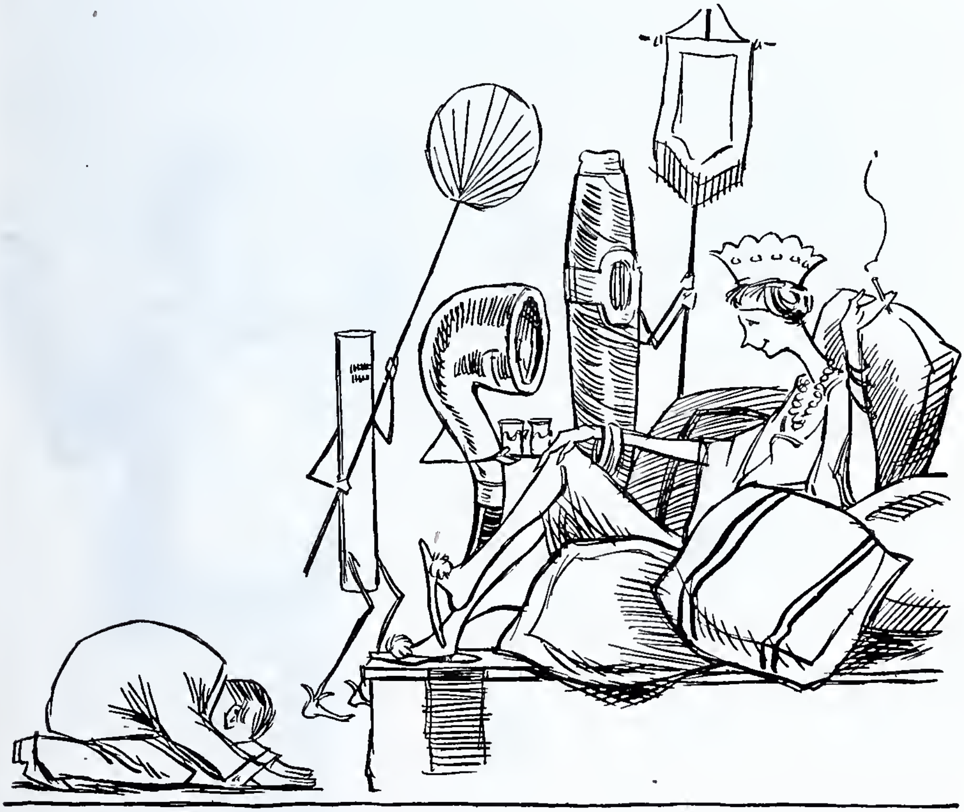
The general use of these weekly releases, the frequent editorial comment both inside and outside the Commonwealth, and a reprinting by other health agencies in other sections of the country, are fairly indicative of the wisdom of this position.

Practically all State Health Departments publish a bulletin of some kind. These vary from the dust-dry statistical type to the highly professional narrative journal.

Appreciating the difficulty of capturing lay-interest in health matters, it was felt that such a publication to be of value in Pennsylvania should be developed from the reader's viewpoint. *Pennsylvania's Health*, the Department's bi-monthly journal, with which most of you are familiar, was the result.

In producing this bulletin every effort has been made to write down to the reader's level without compromising professional standards. Pictures are generously used to illuminate the text; and other features, such as the editorial and Health Gnome, are designed to cater to widely different tastes.

It is a pleasure to report that this publication appears to have made a place for itself in many thousands of homes. Moreover, it is extensively used for collateral reading and instruction in schools. It also finds favor with adult study groups composed of lay people interested in health projects.



**One Should Be Reasonable in Attitude Toward Lady Nicotine—This Man is Not!**

In addition, the magazine reaches all physicians in Pennsylvania, exclusive of Philadelphia and Pittsburgh, is sent to many nurses, hundreds of school teachers and thousands of citizens. It is to be found in libraries; and is mailed to nearly every country on the globe. Its present circulation is 27,000, economic pressure having held it at that figure for some time.

The preparation of special articles for use in trade journals and the more popular type of nationally circulated magazines is also a bureau function.

## Campaigns

Health educational campaigns are regularly featured. The annual Clean-Up project is developed and supervised by the Bureau, with the Departments of Welfare, Forests and Waters, and State Police co-operating. The Health Week of the State Medical Society, originally inspired by Dr. James M. Anders, of Philadelphia, is now on an annual basis. Many of the details of this campaign were developed by this Bureau; and general supervision of the non-professional phases such as contacting with the respective County Medical Societies, preparing press material and furnishing speakers falls to the Bureau's lot.

**One Can Scarcely Become Too Enthusiastic About This Sort of Thing**

It is rather significant of the present trend that thousands of persons each year write to the State Health Department for direct public health information. Replies to these requests frequently entail investigation. Few lend themselves to stereotyped treatment. However, as indicated, personal medical advice is not given.

Together with other members of the central office staff, the Director is required to deliver addresses and lectures to many groups, ranging from so-called service clubs to professional societies. It may be stated casually that a lecture on cancer was delivered during April before the students and faculties of the fourteen State Teachers' Colleges, reaching a student population of nearly ten thousand.

In addition, exhibits, motion pictures, press material and pamphlets are also under the direct control of the Bureau. In short, every information and publicity avenue is used so that a maximum number of Pennsylvania's citizens may be duly informed on health conservation and disease prevention.

While it is believed that the Bureau functions fairly well within its limitations, it has never failed to realize that the keystone of the health educational structure is represented by the public health interest of the family physician. In the last analysis, the physician occupies a position of confidence closed to nearly everyone else. The fact that his services are sought and continued indicates a good measure of esteem for his convictions and performance.

It is he who, fine and splendid though he be in the curative phases of his calling, needs to be more impressed than he is today with the rare opportunity open to him to spread the gospel of good health and health interest.

Therefore, when the average physician can be persuaded to take time off to instruct his patients in the value of the annual physical examination, to impress upon them the advantages of a proper though entirely reasonable living routine, and to emphasize the dangers of self-diagnosis and self-treatment then, and then only, will the orthodox health educational efforts now being conducted attain maximum power for the people's welfare.

# SOCIAL WELFARE IN THE SOCIAL HYGIENE PROBLEM*

**Nellie G. Loftus, R. N.**
*State Health Department*

THE first G-U clinic in this State under the Department of Health officially opened its doors to the public here in Wilkes-Barre for diagnosis and treatment in August of 1918. Since then over twelve thousand men, women and children have been examined, diagnosed, and those who needed attention were treated.

From this group there was a wealth of opportunity to do social work. Out of this group were salvaged eighteen hundred and seven health menace cases, and care was given to thirty-six hundred and seventy-eight cases. It was seen almost immediately that a place of segregation was needed for the health menace type of case. About two years later, September, 1920, a ward was opened at Luzerne County Prison for this purpose.

Then it was seen that there was a need for a rehabilitation program for this type of girl. To incarcerate a patient and give her treatment until she is non-infectious and then release here is all right so far as it goes. But she soon finds her way back to her old associates and surroundings. She needs more than that. She should be looked after mentally, given help and encouragement in finding employment, and then contacted for a while subsequently. Thus a nurse was employed and trained to give daily medication and supervision. Today we have three nurses, and in addition each case is followed up.

A physical, mental and social diagnosis is made of every case. The home is always given the first consideration and wherever possible the girl is returned home and supervised and helped to return to a normal mode of living. If, however, the case under consideration is judged a menace to public health, other arrangements are made.

The state law reads, in effect, that any person who, by mode of living, morals, or physical condition is deemed a menace to the public health, can be incarcerated until non-infectious. Thus the detention ward above mentioned is utilized for this purpose. Up there amid pleasant surroundings, treatment is given and rehabilitation is commenced. As long as the girl is there she is safe so far as disease is concerned, but when the time comes for her to leave the delicate work begins.

Some cases are helped to find a position where checks can be made upon them. Under other circumstances the girl is placed on her own honor and told to report at frequent intervals to the clinic. If all these methods are deemed inadvisable she is placed in an institution, the choice being for whichever one the girl is fitted. The Sleighton Farm Industrial Training School takes the girl between the ages of twelve and sixteen. It gives her at least two years' training and then two years of follow-up work after her parole.

At Muncy is an institution for those over eighteen years who have committed a penal offence. At Laurelton is an institution for feeble-minded women; just as Pennhurst is for feeble-minded children.

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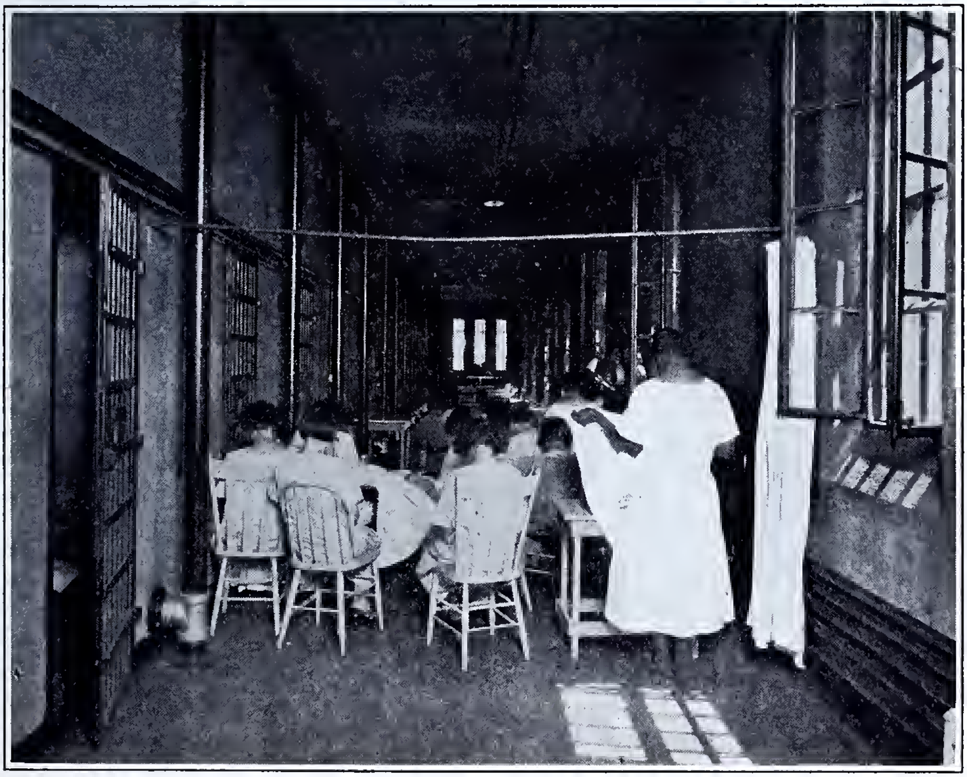
*Address delivered at the Ninth Annual Meeting of the Pennsylvania Public Health Association.

The Retreat Almshouse is for the unfortunate homeless, epileptic and alcoholic cases. They have taken several cases of habitual drunkards and the physician in charge there has had some very successful results. Whether this be due to treatment or the fear of their liberty being taken from them for a long period we do not know.

With all these institutions to help us in the disposal of our cases there is a large problem to determine just in what groups they belong. If a girl has started wrong in life and realizes the error of her ways, she deserves every chance possible for rehabilitation. In such a case she may be returned to her home under the supervision of our Department and finally become a useful citizen. On the other hand, some girls are almost incorrigible and long periods of treatment and institutional supervision are necessary to bring them to their senses.



**Occupational Therapy Plays a Prominent Part in Rehabilitation**

All our cases in this work are legally handled through our courts. We have a splendid group of judges, without whom our work could not very well function. In all cases, they are sympathetic and understanding for the welfare of the individual. They realize that after a worker trained in this type of investigation makes a report, with the addition of the medical report made by a physician who specializes in this work, it deserves the highest consideration in determining what should be done for that individual case. We are glad to say that our recommendations have received flattering approval.

As far as our detention ward is concerned, out of an empty jail ward we have made a livable place for the unfortunate girl to start life over.

The food is good, the furniture and hangings are clean and cheery, there is a fine radio and two canaries. It has its disadvantages and advantages because of its position. Among its advantages are absolute segregation, protection from the ordinary curiosity seeker, protection of the law, a better understanding by the court of these unfortunate women.

We have many voluntary commitments—women and girls without means of even transportation to the clinic and who would be a menace in the home where they lived. After we explain that it will be temporary and as soon as they are physically fit to return to their home they may, they agree to go to the detention ward. We now have a married woman sent by her family physician from a town eighteen miles distant. She had an aggravated, ugly skin condition, discharging a moist fluid with a very bad odor which would alarm even the doctor until he made his diagnosis and decided on treatment. Under antiluetic treatment she is clearing up rapidly.

Treatment Room in the Detention Ward

Another typical case is that of a girl of twenty-three years who came to the clinic voluntarily. The diagnosis was scabies; acute gonorrheal bartholinitis; latent syphilis. Her mother was dead and her father put her out of her home due to an illegitimate child. She became too ill to carry on her work as a domestic. After we explained the existence of a health ward and its use she carried her own commitment to the prison. There she was treated and cured of the scabies and bartholinitis. She is now returning to the clinic for continued anti-luetic treatment and was sent to a dentist where we had bad teeth removed and a plate made for her. She can now become a useful citizen.

Thus social welfare means a careful division of the cases at hand and the proper dispensation for each of them.

## DEPARTMENT NEWS

SWIMMING POOLS—Eight hundred and eighty-two applications have been received to date by the Department for permits to operate public bathing places in Pennsylvania. More than 850 of these have been granted, including 235 beaches, and 175 outdoor swimming pools.

In discussing this matter recently, W. L. Stevenson, chief engineer, said, "Every safeguard is placed around public bathing places in Pennsylvania by the law of 1931. This legislation requires that such places meet the departmental standards relative to sanitary surroundings, quantity and quality of water, and purification measures when necessary. Since the passage of the Act many thousands of dollars have been expended by operators of public bathing places in order that compliance with the law might be realized.

"With an estimated population of 30,000 in the Pocono region alone during the summer months, as well as the general popularity of swimming in other sections of the State, the Department has made a careful inspection prior to the issuance of permits. These inspections will continue from time to time throughout the season. Insofar as the requirements of the law are concerned, thanks to the fine cooperation of the operators, it can be said that the swimming population of Pennsylvania at beaches and camp beaches, as well as that part of it using indoor pools, is excellently protected."

Very apparently, the Department has done its part. It will now be up to the individual to see that he does not enter the water when in a physical condition not to do so, that his indulgence in this sport should not be too prolonged, that he does not swim too soon after eating, and that he respects the damaging power of the sun. Over-enthusiasm will not pay.

MILK DESIGNATIONS—Numerous cases have come to the Department's attention where dairies have been apparently too free in the use of designations on bottle caps such as double A's, triple A's, Baby Milk, Nursing Milk, etc., which in many instances have been misleading buyers. The Department is at present investigating the practice from the dealer's standpoint to determine whether there is need for more than a designation of Grade A on any milk bottle.

"While it is true," recently remarked Robert F. Brinton, director of the Bureau of Milk Control, "that some of the distributors throughout the State are making an earnest effort to develop a superior grade of milk under the double and triple A labels, a number of other dealers are imitating them, benefiting by their competitors' advertisements, and are selling milk bearing a similar label, but containing a product of ordinary quality. In fact, many times the milk bearing the 'A' label comes out of exactly the same tank as the ordinary milk. It is expected that the conferences now being held throughout Pennsylvania by personnel of the milk bureau will result in the establishment of a definite departmental rule on the subject."

SCHOOL DIRECTORS, TAKE NOTICE!—A recent investigation, involving 5,377 schools, indicated that 1,506 were equipped with jacketed stoves, 725 with illegal unjacketed stoves, and 1,893 were provided with ventilating heaters. A provision of the Pennsylvania School Code prohibits the use of the common stove for heating purposes in any school room unless such stove is in part enclosed with a shield or jacket.

In urging compliance with this regulation, Dr. J. Bruce McCreary, Deputy Secretary of Health, recently stated, "The death of a school child which occurred some weeks ago, after a lingering illness, was directly traceable to burns received when her dress came in contact with a red-hot unprotected stove. All school directors are strongly urged to comply with the heating mandate, and should instruct teachers, janitors and others responsible for the condition, to see that all stoves are properly protected and that the door to the shield is kept closed at all times.

"The jacketed stove not only provides a protection to the children's lives, but also insures a better circulation of heat in the school room. Many accidents and near-accidents are now on record in the Department because of carelessness in the enforcement of this regulation. One life is entirely too big a price to pay for non-compliance."

**You Will Note That This School Stove is Properly Protected**

VISUAL DEFECTS—Final reports of the medical inspection of children in the fourth-class school districts reveal that in a group of 90,000 pupils, 3,456 had visual defects of 70 per cent or more in one or both eyes. Sight conservation surveys are now being conducted by the Council of the Blind, in cooperation with the Health Department, for the purpose of remedying these conditions.

"The correction of visual defects is not only essential for the welfare and comfort of the children," states Dr. Theodore B. Appel, Secretary of Health, "but is a decided factor in reducing public health and school costs. Invariably, pupils having defective vision are found in numbers among repeaters which, when considered as a whole, create a large school cost item. Local organizations and school boards are therefore being urged to follow up pupils showing serious visual defects. Such a course represents not only splendid health conservation but cost conservation also."

Incidentally, many parents could well develop a keener interest in this phase of their children's health. Visual defects often are extremely insidious and are not apparent to casual inspection. A little more intelligent curiosity appears to be needed.

CARNIVAL INSPECTION—Circuses and carnivals are now being carefully inspected by agents of the restaurant hygiene section for the purpose of protecting the public against disease by way of improperly protected food and ill food handlers. The inspections involve the food containers, food preparation, and an investigation of the physical condition of food handlers as evidenced by medical certificates which must be procured by them.

**Circuses and Carnivals are Receiving Due Departmental Attention**

PROTECTING REFORESTATION CAMPERS—State Health Department engineers are engaged in supervising the sanitary conditions and water supplies of the 90 reforestation camps now in full swing in Pennsylvania. Eighteen thousand men are concentrated at the camps. It is the State Department of Health's obligation from the sanitary engineering standpoint to protect the health of this large army. Major Coleman B. Mark, of the Department, is in charge of this work, being assisted by a number of departmental engineers.

CAMPERS WARNED—Reports reaching the Department of Health reveal that there is an unprecedented number of campers in the woods this year. For this reason, the Secretary of Health recently issued a warning to citizens of Pennsylvania who are now in camp or who contemplate camp life in the near future.

"Reports reaching this office," stated Doctor Appel, "indicate that thousands of Pennsylvania's citizens have established themselves in camps for an extended period. Undoubtedly the early exodus from the homes to the woods which was noticeable and which has continued at an unprecedented rate, has been occasioned by the enforced leisure on the part of many householders who thus are taking advantage of the health and recreational facilities associated with camp life. While this attitude is an excellent one, it will be wise of campers to realize the public hazards involved in expeditions of this type.

"There are many recreational centers throughout Pennsylvania that are equipped to receive campers, both from the standpoints of safe water supplies and general sanitary facilities. On the other hand, undoubtedly there will be hundreds of families who will prefer more isolated sections where supervisory protection does not exist. It behooves such persons to refrain from using water for drinking purposes that is obtained from an unapproved source. Under no circumstances should water from any creek, no matter how remote, be used for drinking. In fact, camp sites should be chosen with a view to an acceptable safe water supply. Again, the safety of the milk supply should be assured. Even in the more remote sections it is possible to obtain milk which has been pasteurized, or raw milk which carries the stamp of safety upon it.

"It is also advisable for campers to have anti-venom serum with them. This product may be obtained from drug stores, and upon emergency, from the Division of Supplies of the State Health Department. However, its value is largely dependent upon its prompt administration.

"Again, campers in unsupervised sections should bury all rubbish and not permit any type of offensive material to get into streams. All such matter should be properly buried."

How about it, campers?

AN UNUSUAL VISITATION—The disease known as Rocky Mountain fever was recently reported to this Department for the third time in a period of ten or more years, according to a report recently sent to the Secretary of Health by Dr. J. Moore Campbell, director of the bureau of communicable diseases.

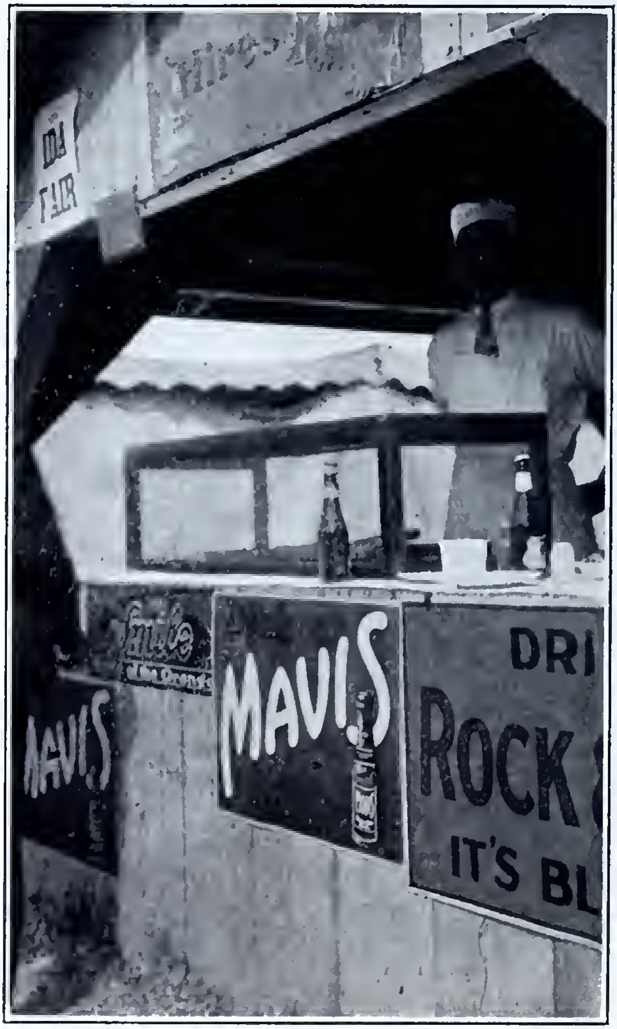
This disease is extremely rare in the eastern sections of the United States, according to Dr. Campbell, though it is common in the western section of the country. It was indicated that it is very closely allied to typhus fever, and is caused by the bite of ticks which carry the germ. The present case, like the other two, was imported. The victim became ill at Chicago while enroute to Pennsylvania.

CANCER—Final figures on cancer for 1932 were recently released by the Bureau of Vital Statistics. The figures indicate that 10,614 Pennsylvanians succumbed to this disease last year, as against 10,146 in 1931, or an increase from 104.1 in 1931 to 108.0 per 100,000 in 1932.

In discussing this report recently, Dr. Emlyn Jones, director of the bureau of vital statistics, stated, "The unfortunate fact in the cancer situation is that at least 30,000 of the 120,000 annual deaths from the disease in the United States would not need to have occurred had the victims recognized the significance of the early symptoms of the disease. A proportion of these 30,000 cases had Pennsylvania as their origin.

"Cancer is never cancer at the beginning of its history. Moreover, in its more common forms, it is readily detectable by means of symptoms such as unusual bleeding or discharge, lumps, persistent sores and chronic indigestion. When any of these conditions arise they should be promptly investigated. The fact that in the precancerous stages of the disease and the early stages of cancer itself, there is usually no pain nor conscious health impairment, undoubtedly is the cause of delayed interest on the victim's part. Every one should realize the possible significance of the early symptoms and promptly seek professional advice."

From Doctor Jones' statement it thus appears that the greatest calamity in the cancer situation is that of carelessness or ignorance on the part of the potential or actual victim.



**Eight Thousand Stands Have Been Inspected This Year by the Department**

ROADSIDE EATING STANDS—The annual survey of restaurants and eating stands in second-class townships has been under way for a number of weeks. This activity is annually conducted for the purpose of protecting the motoring public against objectionable food handlers and insanitary conditions of the restaurants and stands. It is estimated that more than 8,000 such establishments will be covered by State Health Department representatives during the season.

DISTRICT ENGINEER'S OFFICE MOVED—The office of the district engineer, formerly located in the Standard Life Building, Pittsburgh, was recently moved to the First National Bank Building, in Greensburg. The entire staff of fifteen has been affected by the change, including the coal mine drainage crew. Increased efficiency was indicated for the move. The engineering force involved has supervision of water supplies, sewerage, public health nuisances and of investigations and control of sanitation during epidemics in Allegheny, Washington, Greene, Fayette, Somerset, Westmoreland, and Indiana counties.

MARIHUANA SMOKING—The marihuana cigarette habit is increasing, according to a report recently submitted by the Bureau of Drug Control. "Repeated warnings on the consequences of becoming addicted to the marihuana weed have appeared in the public press," comments H. V. Smith, bureau director. "Unscrupulous dealers are employing every effort to entice the younger generation to smoke this habit-forming and health-destroying weed. While the rapid increase in this habit, noticeable several months ago, has not been sustained, present findings again justify a warning to all young people to avoid smoking any cigarette for which claims of undue stimulation and excitement are made. Persistent use of marihuana results not only in physical injury but in insanity also."

A law signed by the Governor a number of weeks ago makes the sale and distribution of marihuana a criminal offence. It will be relied upon by the bureau to a large extent to control the sale of the vicious weed in this jurisdiction. However, young people, as well as elders, should ever be on the alert against the insidious and frequently clever attempts which persist on the part of dealers to sell their devitalizing wares.

# Vital Statistics Comment

## MORTALITY FROM ACCIDENTAL CAUSES

**Florence Hardy**

*Assistant Statistician*

THE past twenty-five years have been outstanding in the field of public welfare. Health history has been made. Housing and sanitary conditions are improving, and there is a more general supervision by the State over the physical well-being of her citizens. While the public is being educated in healthful ways of living, science is constantly discovering new methods of escaping diseases and thousands of institutions are located throughout the country for the care of the mentally and physically ill. All of this is being done for the protection of the individual against the natural causes of death.

What security does he enjoy from the attacks of external forces? Unfortunately, there is no serum which would immunize against an automobile collision, a fall down stairs or a gunshot wound. Accidents have little respect for the age, sex, color or social status of their victims. Fatalities are common in the home, the factory and on the highway. Recreations as well as occupations have their dangers. Motoring, swimming and hunting casualties are daily items in the newspapers.

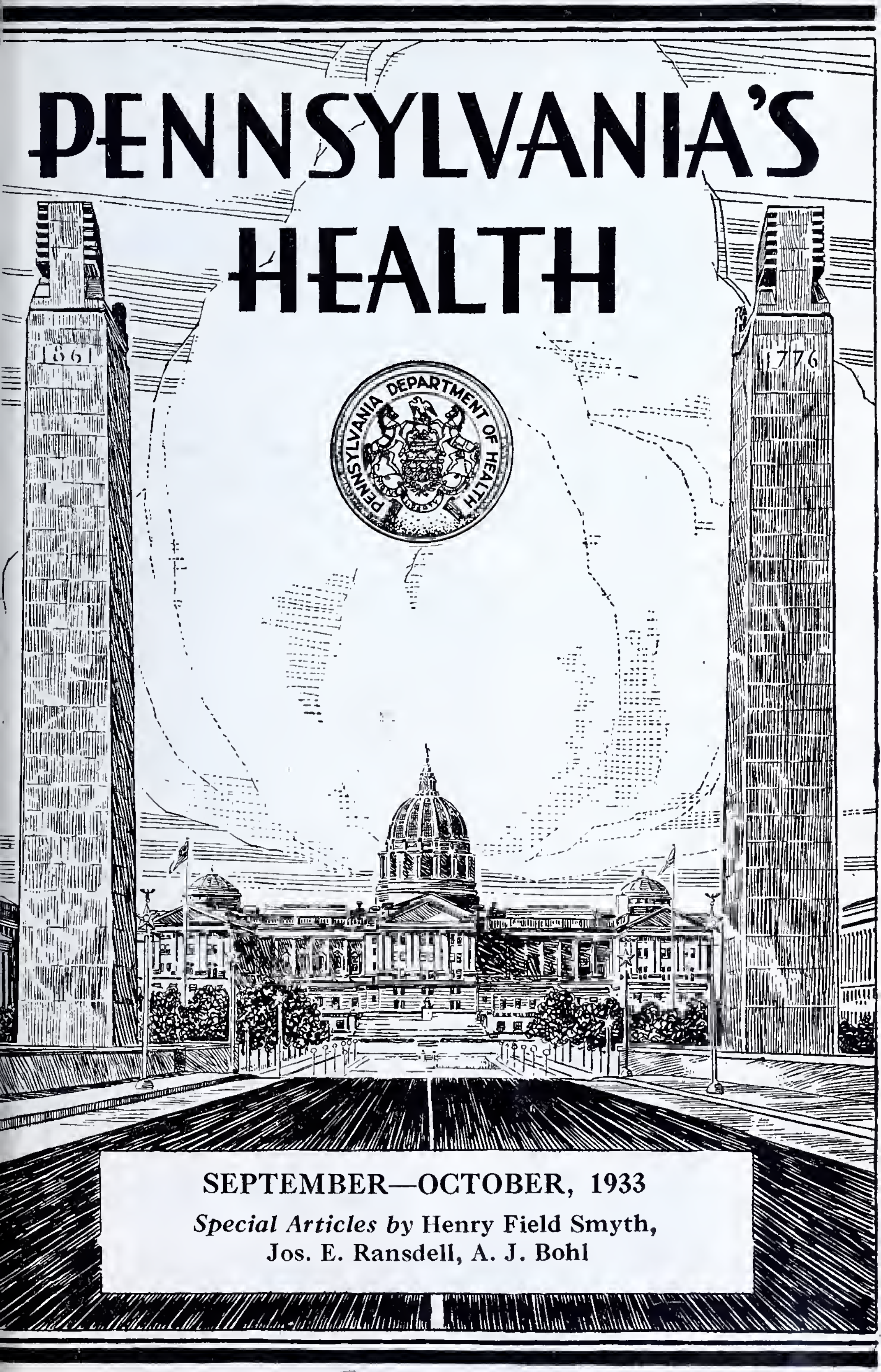
Last year 7,146 persons in Pennsylvania lost their lives from accidental causes. Considered collectively, accidents are the sixth leading cause of death in this Commonwealth and surpass tuberculosis in mortality importance. The 1932 death rate of 72.7 per 100,000 population was the lowest in the State's history. The highest rate for this cause was registered in 1907 when 9,066 deaths and a rate of 124.5 were recorded. It is believed that the minimum mortality of last year was due to inactivity in industry rather than to increased application of safety measures.

Of the 7,146 fatal injuries last year, the largest single cause was automobile accidents. The motor vehicle was responsible for 2,053 deaths—over a fourth of the entire total. In addition to these, there were 48 fatalities resulting from a collision between a train and automobile, and 35 deaths caused by a street-car and automobile accident. Falls ranked second in accidental deaths, and mine and quarry casualties, third. In 1906, the three leaders were railroad accidents, mine and quarry catastrophies and burns. In that year the automobile killed 19 persons, while injuries by vehicles and horses resulted fatally in 238 cases. Last year in Pennsylvania, 15 deaths were due to airplane accidents. Other uncommon causes were poisoning by venomous animals, 10; wood alcohol poisoning, 17; landslide, 7; starvation, 4; and lightning, 22.

The male deaths from accidental causes were more than double the number of female fatalities. A total of 323 colored deaths was recorded. There were 119 casualties among infants under a year old, and 958 accidental deaths of persons over 75 years of age.

Detailed information is not available for many of the deaths attributed to accidents. However, it is undoubtedly true that carelessness was the primary factor in many of the injuries. From a public health viewpoint, where the saving of human life is a main object, the annual needless loss of life due to accidents is a distinct challenge.

# PENNSYLVANIA'S HEALTH



SEPTEMBER—OCTOBER, 1933

*Special Articles by* Henry Field Smyth,
Jos. E. Ransdell, A. J. Bohl

# PENNSYLVANIA DEPARTMENT OF HEALTH

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2. Cresson Sanatorium—Medical Director, T. H. A. Stites, M. D.
3. Hamburg Sanatorium—Medical Director, H. A. Gorman, M. D.
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Deputy Secretary of Health—J. BRUCE McCREARY, M. D.

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1. Field Supervision—C. W. Sheldon, M. D.
2. School Sanitation—
3. Pre-School—Mary Riggs Noble, M. D.

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3. Restaurant Hygiene—Howard M. Haines
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# Pennsylvania's Health

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# Editorial

## A CENTURY OF PROGRESS

IN CHICAGO during the summer and autumn months a most amazing spectacle was to be seen. Collected on 424 acres of ground skirting Lake Michigan, including a man-made island, was a marvelous group of buildings containing a wonderful and impressive exhibition of the march of the world's progress in the past hundred years.

No one fortunate enough to have visited the Exposition could be otherwise but impressed with the great strides that have been made in ten short decades—strides for which the resourceful and unbelievably fertile mind of man has been directly responsible.

Indeed, the strikingly presented mechanical and scientific evolutions which, through countless exhibits, were brought home to the visitor, gave him a realization of the upward march of civilization unobtainable in any other way. There could be no doubting that the world has moved with miraculous speed in the attainment of comforts, conveniences, and delights for the individual of today.

However, to the thoughtful observer, the fact that mature persons were yet dying at a rate comparable to a generation ago, somehow reduced one's enthusiasm for that grand spectacle. In truth, viewing it from the standpoint of increased longevity and its accompanying joy and appreciation of life, the wonderful scientific display contained a subtle though no less solid mockery.

Really, it seems strange that man in his God-like ingenuity in the material and creature-comfort world, has remained so unfortunately set where life and health are concerned—the only two factors that can be relied upon to take advantage of the mechanical joys and blessings.

While devising an airplane that will fly twelve passengers at a sustained speed of 180 miles an hour, while marvelously adapting electricity to his needs and desires, and in a thousand other ways proving his mastery over the physical world, he still neglects to become master of himself.

Habits of living, which in many instances could more properly be styled habits of dying, prevail as in the good old days of the lamp-wick and the canal boat. And the fact that preventive medicine has kept step with the march of progress, in no wise alters this sad fact.

And so it would seem that the Century of Progress very definitely needs to be supplemented by a century of progressive living. For without it, what price progress, indeed!

*J. C. F.*

# CO-ORDINATION AND PROGRESS IN PUBLIC HEALTH*

**Henry Field Smyth, M. D.**
*Ex-President, Pennsylvania Public Health Association*

THE modern public health movement is of comparatively recent origin, developing within the last hundred years or so. It is true that ancient history and archeology show us that Babylon, Greece and Rome recognized the value of sanitation, especially as to water supply and sewage disposal, the remains of a number of public works of this nature being still visible. Efforts were made at tremendous expense and labor to secure abundant supplies of pure water for the great cities of antiquity. However, they knew nothing of epidemiology and many of the other fields now considered part of public health. Administrators assumed no obligations as to the health of the people. Plans of development and conquest often fell far short in accomplishment or failed signally because of the "intervention of the Gods" in the shape of pestilence, or other unrecognized physical deteriorations due to what we now recognize as preventable causes.

The Mosaic Code contains many excellent sanitary and hygienic regulations, operative in an at-the-time unrecognizable way, to help preserve the life of the Hebrew race, in spite of the persecutions and ostracisms to which it was subjected for centuries.

But even then beginnings of sanitation, public and private, were apparently forgotten or neglected by the nations at large, so that most deplorable conditions were general by the end of the eighteenth century. Any one reading through the histories of the so-called civilized European nations during the Middle Ages cannot fail to be struck by the complete disregard of health factors and the frequency with which "pestilence" of one kind or another raised sieges and generally upset the plans of would-be conquering heroes and of self-satisfied sovereign rulers.

In spite of the great cultural development of the eighteenth century, at the end of that period there was an utter neglect of sanitation, as evidenced by polluted water supplies, lack of water carriage of sewage, wretched housing conditions, both in city and country, no thought of safe milk supplies, and general neglect of personal cleanliness among the common people. Infant mortality was as high as 25 per cent and life expectancy at birth was no more than 30 years. Smallpox was as prevalent as measles, and cholera and plague were almost pandemic at times.

With the downfall of Napoleon there came an awakening of public interest in health matters, community cleanliness and sanitation, improved water supplies, sewage disposal, refuse disposal, street cleaning, and the control of offensive trades—these first receiving attention as matters affecting the public health. So that, naturally, during the first half of the nineteenth century the engineer, rather than the physician, was supreme in health work. The physician health officer interested himself almost exclusively in quarantining for infectious diseases by measures devised in Venice almost 500 years earlier, and in investigating the almost endless complaints of nuisances supposed by the petitioners to be injurious to health.

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*Address delivered before the Ninth Annual Session, Pennsylvania Public Health Association.

## Advent of Medical Domination

With the development of the science of bacteriology in the latter half of the century came medical domination in health department activities, with the laboratory an essential part of the development, and efforts to attack the major infectious diseases nearer to their source. Stress was more and more put upon preventing the infection of man, rather than caring for and isolating those already infected, and seeking and clearing out primary non-human reservoirs of infection when such existed. More recently came the clearing up of carrier cases—those human, apparently healthy, reservoirs.

Following the demonstration by Snow and others of the role of water as a disease carrier (first noted in cholera, with the lesson of the Hamburg cholera epidemic in 1892), of the development and use of diphtheria antitoxin, of the Widal method of diagnosis of typhoid fever, and of anti-typhoid vaccination, there came a period of extravagant optimism as to the effectiveness of public health measures. "Find the bacterial cause of disease, and the remedy is in sight." The failure of tuberculin therapy, among other things, led to a return to more rational views.

**Quarantine, One of the First of the Sanitary Measures, is Today Also Fundamentally Important**

Attention now became focused on the causative factors of disease, rather than on single causes, with the realization that concentration of attack on the germ cause alone often brings disappointing results. These causative factors are seen in such general health conditions as crowding, fatigue, habits, poverty, water, ventilation, and (only recently being studied) municipal air pollution, and foods, both from the standpoint of adequacy and suitability.

The reciprocal relationship between disease and social and economic conditions became more and more recognized, although the influence of disease on social and economic conditions was appreciated long before that of social and economic conditions on disease. We now recognize that they may influence disease by determining home environment (as slum areas, dirt, rubbish, insects); by being responsible for unhygienic industrial conditions (sweat shops, long hours, low wages, irregular employment, child labor); by determining the character of food and nutrition (whether insufficient or unbalanced or both); by influencing the degree of maternal care and of illegitimacy; by affecting the availability of medical advice and the ability to follow the same; the character of personal hygiene (clothing, cleanliness), the healthfulness of recreation, and the degree of education.

## Poverty and Health

The effect of poverty on health was well demonstrated by the survey of the Public Health Committee of the New York Academy of Medicine, which showed that 88.5 per cent of individuals in families with incomes under $4.50 per capita per week had some illness within the year, while 68.4 per cent of individuals in families with per capita incomes of between $10.50 and $15.50 per week were not so affected. The increased incidence of disease in those with lower incomes was especially noticeable in gastro-intestinal and respiratory diseases and in infant mortality.

Race has often been cited as one of the predisposing causes of disease, but more often than not, the economic and social conditions of the race are the real factors. This is well shown by a comparison of infant deaths among Negroes in New York City in 1928, with the rate for Negroes in Denver for the same year, as reported by Kaplan in the *American Journal of Public Health* for October, 1932. New York, with a general infant death rate of 59, had a Negro infant death rate of 128 This was attributable to a number of factors such as high illegitimacy rate, prevalence of syphilis, tuberculosis and alcoholism; crowding, lack of industrial opportunities for males, with gainful employment for women resulting in child care by ignorant mammies or uninterested neighbors; ignorance, superstition, and the use of quack remedies and "patent" medicines. As a contrast, Denver had a general infant death rate of 63, and in one district, representing 65 of the 91 Negro live births of the entire city, there was only one Negro infant death. In this district was located an infant welfare station, with 80 per cent of the expectant mothers availing themselves of its care being Negroes.

At the close of the nineteenth century we began to lay emphasis on disease as a preventable social and economic burden on the individual and on the State, for which the State should provide some measure of relief, and we began to refer to public health as a purchasable commodity, but how few communities yet care to pay for a first-class product!

Then came a more careful study of these influences of environment, heredity, social and economic conditions, and occupation, on health. The sociologist had a prominent share in developing the newer health methods, such as the child hygiene and maternity hygiene campaigns, and campaigns against the so-called "social" diseases. Here, also, the public health nurse comes into the picture with values not only in caring for the ill, but in educating housekeepers and householders in the principles of healthful living and in interpreting public health activities and policies to the general public.

With increasing interest of health departments in child health and in improving the general tone and resistance of their future citizens, the dentist and nutritionist come into the picture.

Public health laboratories, starting as purely bacteriological diagnostic stations, now have expanded to include milk and water analysis, blood chemistry, the preparation of diagnostic and immunizing biologicals, and both bacteriologic and chemical food control.

With an increasing realization of the role of domestic animals as disease transmitters, there has developed an increasing place for the veterinarian in health department programs, and in both city and rural health programs the control of insect pests and disease transmitters often demands the special knowledge and training of the entomologist.

**Bad Housing and Poverty Invite Disease and Death**

Some health departments, far too few as yet, are beginning to take an interest in industrial health, although until recently they were apparently uninterested in the health conditions surrounding a large part of their adult and adolescent populations during fifty per cent or more of their waking hours.

Even such an exact science as mathematics has an essential place in public health, since without accurately and adequately collected vital statistics, properly studied, correlated and used, no health department can even know its problems, let alone solve them.

## The Value of Health Education

There is an important place as well for the publicist, as health officers should not hide their lights under bushels. Education of the public, and even of the medical profession, is needed to ensure proper functioning and adequate results from new efforts. Expensive and sweeping innovations must be supported by public sentiment. Individuals must be convinced of the need of individual action. Cancer hospitals are of little use unless people realize the need of early treatment. Milk stations do not properly fulfill their functions unless supplemented by intelligent home care of milk. Housing laws and model dwellings will not of themselves control home hygiene.

**Cancer Research Has Demonstrated the Necessity of Recognizing Symptoms Early**

And now the most recent recruits to the public health army are the mental hygienists and those specializing in the so-called degenerative diseases, as diabetes, heart disease, and cancer. Sir Leslie Mackenzie, in *Preventive Medicine and Public Health*, says that "In the wide field of mental diseases we are only beginning to understand the possibilities of prevention." He attributes this awakening to the importance of the field of mental diseases to the psycho-neuroses of the war, added to the steadily accumulating fields of clinical psychology. He says that "now, as never before, the whole field of the neuroses, the psychoneuroses, the insanities, invites the application of preventive medicine." This includes the effect on crime prevention as well as on normal living.

Industry is beginning to appreciate the value of mental hygiene studies, and Rosenau speaks of "the development of psychiatry into a great branch of social medicine," with the mental hygiene movement one of the most significant factors in preventive medicine in America.

I have tried to sketch very briefly the development of the public health movement from an interest in general sanitation and the dread of contagion, to the rapidly developing and broadening program of today, aiming not solely at disease prevention, but striving for improvement of health, positive health, increasing of efficiency, and promotion of happiness for mankind in general.

## Co-ordination Necessary

Public health administration is part of the public machinery of Government and in that sense cannot be divorced from politics, much as it would seem advisable to have it so. Official public health should cooperate with volunteer health organizations, as there is a place for both which should not be overstepped, and there are fields in which one can cooperate with the other and supplement the work of the other; sometimes one and sometimes the other leading the way. A well organized community health center, such as we will be privileged to see in operation here in Wilkes-Barre,* is a wonderful means of harmonizing and co-ordinating various forms of health activity, and of converting antagonisms and duplications of effort into understanding and harmonious action.

Public health should establish relations with medicine, dentistry, nursing, engineering, pharmaceutical and other professions. A good health program cannot succeed in the face of the opposition of the medical profession.

Recently the American Public Health Association, of which we are a part, has realized that the time has come for more standardization of public health activities and, through its standing Committee on Administrative Practice, has promulgated standards to be used as a basis of scoring health department activities as an aid to the individual worker or department, for his guidance in evaluating work done and planning new work to be undertaken. Such standards serve as guide and protection if based on service, with work well done as the criterion of excellence. They should not be rigid, but subject to periodic revision, and should recognize that while disease prevention is important, health conservation is fundamental, health education is essential, and research is basic. Values in health work are relative rather than absolute and vary with location, population, and degree of civilization. As Sir Leslie Mackenzie says, "Theoretically, there is always a danger that organization will lead to rigid administration, that rigidity of administration will lead to sterility of output, and that the individual may be lost in the machine."

The standards are evaluated for the purpose of scoring on the basis of a total of 1,000 points, and although time does not permit of detailed discussion of values, it is of interest to note what criteria are used as a basis of scoring under a few, at least, of the principal headings. Vital statistics, with a rating of 50, is scored on the basis of completeness of collection, careful analysis of data, and full use of the same. Communicable disease control, given 160 points, is rated according to standards of reporting, investigation, records, control measures, visits per case, diagnostic service offered and used, hospitalization, and immunization where available. The relative value of control of specific diseases depends on the number of cases and deaths, the economic factors involved, and the feasibility of prevention. Venereal disease control, 50 points, is scored according to reporting, treatments offered and administered, and on epidemiologic checking; tuberculosis, 90 points, on case finding, nursing, clinics, and hospitalization.

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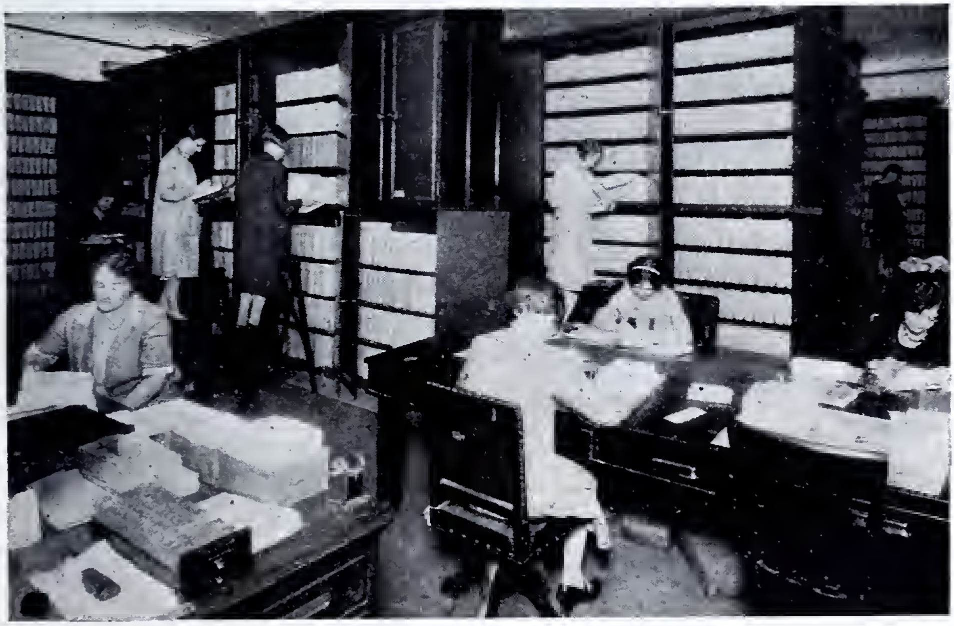
*The Evangeline Kirby Memorial Health Center, Wilkes-Barre, Pa.

We have indicated that a complete health program covers many lines of activities, finding a place for physician, engineer, nurse, dentist, sociologist, nutritionist, neurologist, bacteriologist, chemist, veterinarian, entomologist, educator, and others, and no doubt representatives of all these groups will attend these meetings. We have endeavored to have most of them represented on our program, where are represented national, state, city, town and rural activities, child hygiene, epidemiology, sociology, laboratory work, insurance, industry, education, nutrition, dentistry, medical cooperation, and Community Health Center activity, embracing and co-ordinating many fields.



**Vital Statistics Investigation Tells the Story of Public Health Progress**

I would that we might all, not merely benefit from presentations related to our own lines of activity, but be stimulated by the realization that we are all units, each an essential unit, in a mighty army banded together "pro bono publico."

In conclusion, I am going to quote Scripture—a passage from Romans (Chapter 12), which it seems to me can be taken by each one of us as a guide and measure of our activity and efficiency in this great movement. I use it in all reverence and humility, even though I do paraphrase the last of it:

"I beseech you, therefore, brethren, by the mercies of God that ye present your bodies a living sacrifice, holy, acceptable unto God, which is your reasonable service, . . . For I say, through the grace given unto me, to every man that is among you, not to think of himself more highly than he ought to think, but to think soberly, according as God has dealt to every man the measure of faith. For as we have many members in one body and all members have not the same office; so we, being many, are one body . . ." (and here I start to paraphrase) in Public Health Activity. Having gifts differing according to the grace that is given to us, whether administrative, let us administer forcefully, calmly, and intelligently; or investigative, let us investigate with energy, wisdom and thoroughness; or educative, let us give of our best in preparation and presentation, clear and concise in iteration, infinitely patient in reiteration ('for the human mind has infinite resources to resist the introduction of knowledge'); he that inspects, let him inspect carefully and impartially, and she that nurses, let her nurse skilfully and sympathetically . . . and a few phrases from the rest of the chapter . . . "Not slothful in business . . . patient in tribulation . . . be not wise in your own conceits . . . provide things honest in the sight of all men . . . avenge not yourselves, but rather give place unto wrath . . . be not overcome of evil, but overcome evil with good."

# The Health Gnome Says —

Science and invention
Are a romance all their own;
Creature comforts and their joys
Indeed, now seem full-blown.

And for this evolution
Man's mind is the sole cause;
God-like in its attainments,
It has mastered many laws.

Electricity, water, iron and steel,
Are under man's command;
And the miracles resulting
Are the wonders of the land.

But with all his vaunted power
In laying giants low;
Man somehow fails to realize
That Nature's in the show.

So he treats his body roughly,
And snubs the Old Dame's laws;
To realize on some fine day
That his body's full of flaws.

Yes, natural forces he can tame
With an amazing skill;
But he himself stays off the track
Because of lack of will!

*J. C. F.*

# THE FEDERAL GOVERNMENT AND HEALTH*

**Joseph E. Ransdell**
*Former U. S. Senator from Louisiana*
*Executive Director, Conference Board,*
*National Institute of Health*

TO THE average citizen the Government in Washington is a vast legislative mill turning out thousands of laws annually for the regulation of his conduct, and for the collection of his taxes. Only in a remote, abstract way does he feel that the central governing agency is concerned with him, and seldom if ever does he stop to think that through the various channels leading out of Washington flow the effects of research that actively and intimately enter into his everyday life. Yet his Government performs one of the most beneficial of all services rendered to man when it seeks to preserve his health and prolong his life, thus fulfilling one of the prime objectives of the Constitution, which was formulated in order to safeguard life and liberty and insure the pursuit of happiness.

One of the methods by which the Government seeks to secure the welfare of its citizens is through the preservation of their health. The Fathers granted constitutional sanction to these efforts when they laid down the basic function of promoting the "general welfare of the people" in the Constitution. Under that power agencies have been established from time to time for safeguarding the lives and health of the citizens.

One of the first such agencies set up was the Marine Hospital Service (1798), which has grown into the present United States Public Health Service. The Service has been, and is, principally concerned with the conservation of the public health and the eradication of diseases affecting man. It is a division of the Treasury Department and under the direct supervision of an Assistant Secretary of the Department. Its activities range from the operation of hospitals to the dissemination of general health information. A detailed study of its many sub-divisions would avail nothing. Suffice it to say that practically all fields of health endeavor come into active contact with the Public Health Service.

In addition to the Public Health Service, the Treasury Department administers two divisions which are only indirectly concerned with public health. They are the Bureau of Internal Revenue and the Customs Service.

Of the sixteen bureaus in the Department of Agriculture, eleven are concerned with the health of man. They are: (1) The Bureau of Chemistry, which carries on its work under the Food and Drugs Act, the Tea Inspection Act and the Naval Stores Act; (2) The Bureau of Animal Industry; (3) The Bureau of Home Economics; (4) The Bureau of Dairy Industry; (5) The Extension Service; (6) The Bureau of Entomology; (7) The Bureau of Biological Survey; (8) The Bureau of Public Roads; (9) The Bureau of Agricultural Economics; (10) The Bureau of Plant Industry; and (11) The Forest Service.

Of the six bureaus in the Department of Labor, four are concerned with public health. They are: (1) The Children's Bureau; (2) The Women's Bureau; (3) The Bureau of Labor Statistics; and (4) The Bureau of Immigration.

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*Address delivered at Ninth Annual Session, Pennsylvania Public Health Association.

Of the twelve divisions of the Department of the Interior, four bureaus are concerned with health and two are hospitals. One establishment which rendered medical service has been transferred to the Veterans' Administration. They are: (1) The Office of Indian Affairs; (2) The Bureau of Education; (3) St. Elizabeth's Hospital; (4) Freedmen's Hospital; (5) The Geological Survey; (6) The National Park Service; and (7) The Bureau of Pensions (now in Veterans' Administration).

Of the ten bureaus in the Department of Commerce, six are concerned with health. They are: (1) The Bureau of the Census—Vital Statistics; (2) The Bureau of Mines; (3) The Bureau of Fisheries; (4) The Bureau of Standards; (5) The Patent Office; and (6) The Steamboat Inspection Service.

In the Departments of State, Justice and Post-Office are four divisions concerned with health. They are: (1) The Consular Service (State); (2) The Superintendent of Prisons (Justice); (3) The Administration of Postal Laws (Post-Office); and (4) The Service Relations (Post-Office).

The Medical Department of the Army and the Bureau of Medicine and Surgery of the Navy are the two bureaus which are particularly concerned with the health of the military forces of the United States. Their efforts, however, in some instances touch the general health of the people of the United States.

We find six independent establishments which are concerned with the health of the people. The largest of these is the United States Veterans' Administration, which is charged with the administration of affairs in regard to ex-service men. Then follow the Employes' Compensation Commission, the Board of Vocational Education, the Smithsonian Institution, the Bureau of Safety of the Interstate Commerce Commission, and the Narcotic Control Board.

## Some Outstanding Discoveries in Medicine by Federal Officials

A. Theobald Smith, of the Department of Agriculture, demonstrated that Texas fever is caused by the bite of a small insect—a tick. This monumental discovery, which entitles Doctor Smith to the highest rank in the realm of health, set the pace for others to prove that malaria and yellow fever are caused by mosquitoes, sleeping sickness by the tse-tse fly, bubonic plague by fleas, typhus fever by lice, tularemia by flies, Rocky Mountain spotted fever by ticks, etc.

B. Reed, Carroll, Lazear, and Agramonte, of the Army, showed that yellow fever is caused by the bite of the aedes mosquito, and General Gorgas of the same service performed the herculean task of driving malaria and yellow fever from the Isthmus of Panama, thereby enabling the United States to construct the Panama Canal after the French had failed.

C. Goldberger, of the Old Hygienic Laboratory, now the National Institute of Health, proved that pellagra is due to improper diet and is curable by the use of a balanced ration without medicine, which was something entirely new in medical science. It led to invaluable studies and discoveries in nutrition and placed Goldberger in the very forefront of his profession.

D. Miss Alice Evans, of the National Institute of Health, identified as twins the germs which cause undulant fever in man and contagious abortion in cattle. This latter disease ranks with bovine tuberculosis and causes enormous losses to cattle raisers. The principal prevention among men is the use of pasteurized milk. The world's foremost male bacteriologists failed to establish the identity of these diseases, and a woman succeeded. All honor to this daughter of Pennsylvania!

E. Tularemia, prevalent throughout the Union and in many foreign lands, was put on the map as a striking example of America's contribution to medicine as the result of the combined efforts of Doctors Francis and McCoy, of the National Institute of Health. It is transmitted by a blood-sucking fly, and especially by the handling of the carcasses of wild rabbits.

F. Doctor Spencer, of the National Institute of Health, developed a preventive vaccine for Rocky Mountain spotted fever, produced by the use of ground-up infected ticks. This is an American disease, and its mortality in the western states was 90 per cent to 95 per cent before Spencer's discovery. Very few people now die of it.

While all of the bureaus mentioned above do not concern themselves solely with health activities, they are interested in some phase of the physical well-being of the American people. Some of the branches are concerned directly and some indirectly with public health. They may be classified under four headings:

**I. Major Interest in Public Health:**

1. Public Health Service—Treasury
2. Bureau of Chemistry—Agriculture
3. Bureau of Animal Industry—Agriculture
4. The Children's Bureau—Labor
5. Division of Vital Statistics—Commerce
6. Office of Indian Affairs, Medical Division—Interior
7. Bureau of Education, School Hygiene—Interior

**II. Interest in Public Health Important, but Secondary:**

1. Bureau of Home Economics—Agriculture
2. Bureau of Dairying—Agriculture
3. Extension Service—Agriculture
4. Bureau of Mines—Commerce
5. Bureau of Immigration—Labor
6. Women's Bureau—Labor
7. Bureau of Labor Statistics—Labor

**III. Medical Service or Relief, or Public Health of Restricted or Special Scope:**

1. Medical Department—Army
2. Bureau of Medicine and Surgery—Navy
3. U. S. Veterans' Administration—Independent
4. Employes' Compensation Commission—Independent
5. St. Elizabeth's Hospital—Interior
6. Freedmen's Hospital—Interior
7. Bureau of Education, Alaska Division—Interior
8. Service Relations Division—Post-Office

## IV. Public Health or Medical Work Incidental Only:

1. Bureau of Internal Revenue—Treasury
2. Customs Service—Treasury
3. Consular Service—State
4. Bureau of Entomology—Agriculture
5. Bureau of Public Roads—Agriculture
6. Bureau of Biological Survey—Agriculture
7. Bureau of Plant Industry—Agriculture
8. Office of Experiment Stations—Agriculture
9. The Forest Service—Agriculture
10. Bureau of Fisheries—Commerce
11. Bureau of Standards—Commerce
12. Steamboat Inspection Service—Commerce
13. The Patent Office—Commerce
14. Geological Survey—Interior
15. National Park Service—Interior
16. Bureau of Pensions—Interior (now Veterans' Administration)
17. Board for Vocational Education—Independent

It is thus seen that the Federal Government, among many other matters, is intensely interested in the physical welfare of its citizens.

# "HAVE A HEART!"

## A. J. Bohl

*Secretary, Pennsylvania Public Health Association*

WAY back in the dim ages of time, I have no doubt, one Neanderthal man said to another, "Have a heart!" I'm sure he said it. I'm sure it was one of the first used expressions. But even if those old boys had no spoken language it's a safe bet that they formed a mental image of the words, or of the thought back of them.

Perhaps to no other organ of the body have so many emotions been attributed as to the heart. The gay lover murmurs to his chosen one of the effect she produces on his heart. Our priests point to the heart as the source of sacred love, of pity and compassion. We even go to the other extreme and call people black-hearted, or cold-hearted, or say that they have murder in their hearts. And all these are but fantasies which have colored the thoughts and the languages of men since time immemorial.

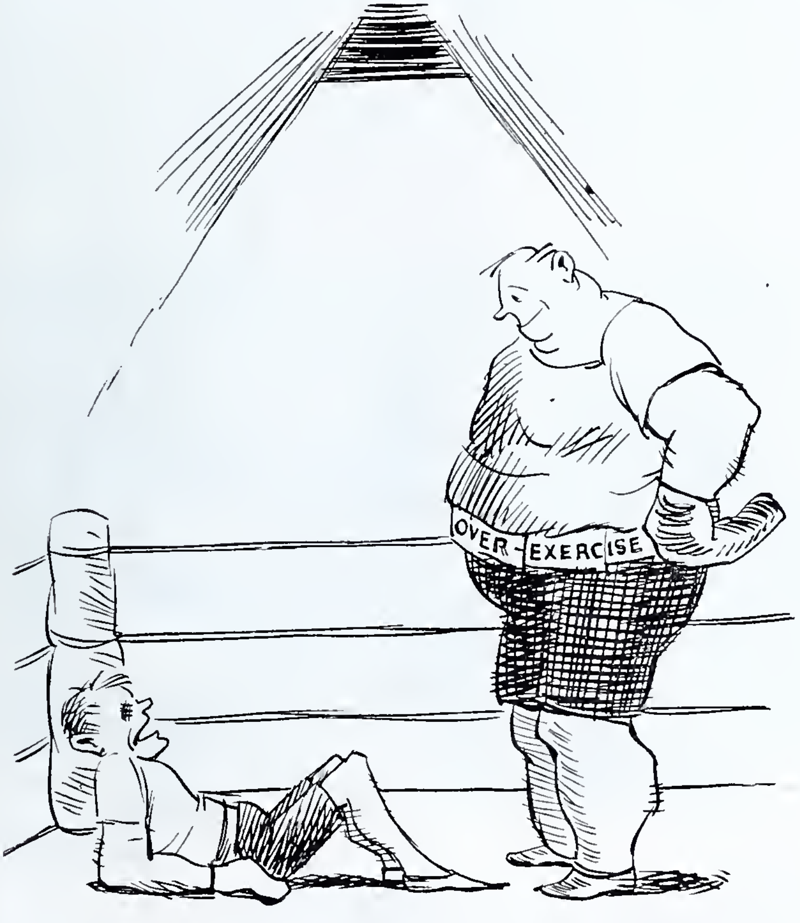
If we play on the heart the cold, keen searchlight of scientific and medical knowledge, we find it to be a beautiful piece of mechanism, a pump, pure and simple. We find it to be perfect in design and construction, able to take care of subnormal or abnormal demand at a moment's notice, self-lubricating, self-governing, and bearing in itself the possibilities of adjustment, compensation and repair. But that is all. And the heart, perfect as it is, yet remains a thing of flesh and blood, a part of the body which it drives, and like all of that body, subject to disease and damage.

Just as a mechanical pump manifests its disorder by symptoms familiar to the engineer or pump tender, so do the diseases of the heart manifest themselves by characteristic signs known to the physician. Pain is frequently an absent symptom, so the physician, when called upon to treat some individual who feels that he has some heart condition, puts forth questions concerning the possible shortness of the breath, and forthwith punches the lower limbs with his finger, searching for a more or less persistent swelling. The first symptom is caused by poor circulation in the lungs, whereby Nature, poor thing, in seeking to satisfy the call of the body for oxygen, tries to get more of this life-giving gas into an altogether inadequate supply of blood. The second symptom is purely mechanical. The weakened heart is unable to pump the blood in the lower parts of the body against gravity; there is an accumulation of blood in these parts, a dilation of the blood vessels, and the watery part of the blood is literally strained through the walls of the vessels into the tissues.

One of the heart conditions is caused by disease of the kidneys, in which some of the toxic waste products of the body are not excreted, but are passed back into the blood stream. These poisons cause spasmodic contractions of the blood vessels, resulting in high blood pressure. This necessitates much harder work by the heart, and it takes but a few years of this extraordinary effort for the heart simply to wear out.

Another cause of high blood pressure is the encroachment of old age on the human organism. The blood tubes become smaller and less elastic, resembling lead pipe rather than rubber tubing. The result is the same, whether the cause be toxins or approaching senility. The heart does all that it can, gets larger and stronger, just as any muscle becomes larger through work or exercise, but the end comes when compensation is no longer possible and the heart breaks down under its heavy duty.

There are other causes of heart disease, of course; scarlet fever and diphtheria sometimes, and fairly often, leave a damaged heart behind them when they go. Bad teeth and throats may cause a streptococcic inflammation of the heart valves, so that they leak. In this condition also, the heart enlarges and becomes stronger, so that it can pump enough blood to overcome the shortage caused by leakage back through the valves.



**Good Health Habits Help to Keep Good Hearts Good—
This is Not One of Them**

While pain is usually absent, yet, sometimes, it occurs, as in angina pectoris. This is a pain in or about the heart, brought on by emotion or exercise, sometimes the slightest exercise, and relieved by rest. Almost anything that will cause the heart to beat faster will bring about the pain. Walking upstairs will do it, fright will do it, even so simple a thing as losing one's temper may cause an attack. Rest is the sovereign remedy, plenty of rest, real rest. There are drugs and treatments, of course, but that is the province of the physician, and has no place here.

Now, after all this preamble, it seems that heart disease is frequently not heart disease at all, but is the result of some affection of another organ or part of the body. It appears further that the heart possesses reserves of strength which enable it to carry on in the face of disability; has powers of adapting itself so as to overcome weakness in other organs.

Our human hearts are simple, strong organs, exceedingly strong muscles, and it is somewhat surprising that we find statistical evidence that disability and fatal heart conditions are increasing here in Pennsylvania. We might think, logically, that there should be an almost constant rate of heart disease, since the human body changes not at all from generation to generation and probably is today exactly as it was ten thousand years ago. But when we turn to vital statistics, we find that logic is not borne out by facts. We find, for instance, that a quarter century ago but nine per cent of the total mortality in Pennsylvania was attributable to heart disease, while today twenty-two per cent is referable to this cause.

**Wooing Health with Reasonable Wisdom is a Fine Defense Against Heart Disease**

We find that twenty years ago heart disease occupied third place in the leading causes of death, with tuberculosis and pneumonia in the first and second places. Since 1920, heart disease has been the leading cause of mortality. In 1932, for instance, there were 24,092 deaths from this cause, a rate of 245.1 per 100,000, with the second place occupied by cancer with 10,614 deaths, a rate of 108.0 per 100,000. And we find that during the past twenty-seven years there have been 423,510 deaths directly from this cause, with heaven only knows how many thousands in which it has been a secondary or contributory cause.

This tremendous mortality should, at least, be the subject of much concern. Actually it is a matter of concern by the medical profession and public health officialdom, but it needs to be brought home to the people who are actually affected by it, the nearly ten million people in Pennsylvania, that they, and they only, can do something about it. It seems to be an individual matter, in which every person, every adult at least, must inquire into his own personal affairs and his own way of living.

**For Well Persons Athletic Sports Geared to One's Age and Moderately Followed, Represent a Health Asset**

Without any definite figures to offer in the way of proof, it is thought that much heart disease is aggravated, if not directly caused by, modern high-pressure life. It is certainly plainly understandable that the man who has a heart condition, even a comparatively slight one, is not the man who can safely go in for athletics. Tennis, swimming, baseball, any strenuous sport, is not safe for those with bad hearts. It has been demonstrated that those with good hearts, even exceptional hearts, can sustain irreparable damage through over-exertion in games and sport.

Too fast a pace in business life is another killing procedure, and it's pretty hard even to suggest a remedy. A man must strive against competition, must worry and burn the midnight oil to some extent but, if you've noticed, it is usually the tired business man who is the golf addict, and it's the combination that sometimes proves to be too strenuous

The man who has a serious heart lesion usually knows it. The symptoms have intruded themselves upon his consciousness, and he has placed himself under the care of his physician. He knows that he can't play games, can't work too hard; knows, in short, that he can't take it. He has come to the realization that the length of his life depends entirely upon the mode of his life. Let's put him in group one.

In a second group are those who have symptoms, and do nothing about it. They have grown up as athletes, demanding much of their bodies, and they continue the demand. They forget that they are growing older, ignore their shortness of breath.

A third group are those who have no symptoms, and who have no disease.

For the first group nothing can be done, over and above what is being done by themselves and their medical advisers.

For the second group much can be done. It will mean for them a complete change of habits, a rearrangement of life. But there will be compensations, and it seems that the added years of life should be enough compensation for lost pleasures.

And what about the third group? What can be said—they are strong, healthy, able. Heart disease is only an abstract condition about which they may have heard, but which means absolutely nothing to them. But, they are right at the critical point. Thousands strong, they are the substance upon which heart disease, in the years to come, will feed. Among their numbers are those who will be found dead in their beds, who will crash across their desks, who will pass out of life's picture prematurely. There is but one way out. Heart disease is not a contagious condition, nor does it come into existence just over night. It's the wear and tear, the grind of daily life, that brings it on. Improper ways of living, too great use of stimulants, too much work and worry and hard, strenuous play, lack of rest and sleep, all contribute to it.

The way out is obvious. The old Neanderthal man didn't worry, didn't overeat, didn't stimulate himself. He went to sleep as soon as night came, worked hard enough to get his daily food and let it go at that, and rested when he was tired. In short, he lived a natural life. You can't live as he did, of course, but you can take a leaf from his book. Work when you must, work hard if you must, but rest when you have a chance. I mean rest, loaf, take it easy. You don't have to play golf or tennis on your day off, you don't have to buzz 'round the country side every night. Conceivably you can rest and sleep a reasonable number of hours every day. And see your doctor now and then—not when you're sick, but when you're well. Let him look you over occasionally.

Yours is the only body you'll ever have. You received it, let us say, strong and healthy and efficient. Why destroy, why wear out prematurely, so marvelous an organism as yourself? Have a heart!

## DEPARTMENT NEWS

HOME ACCIDENTS—Dr. J. Bruce McCreary, Deputy Secretary of Health, recently issued a warning regarding the home accident hazard.

"It may be surprising to many to learn that in 1932, 28,000 accidental deaths occurred in the homes of the nation," commented Doctor McCreary. "Only 1,500 more persons were killed by the automobile than lost their lives by accidents at home. Occupational deaths due to accidents were but 15,000. This indicates that one is safer at work than at home.

Carelessness is Back of Most of the Home Accidents

"Moreover, in addition to the 28,000 home fatalities in 1932, there were approximately 4,195,000 non-fatal injuries of which 125,000 were permanent. Pennsylvania had its pro-rata share in this unfortunate situation. More care in the home seems to be indicated."

CHILDREN OF COMMUNITY MARKETS EXAMINED—The Department recently announced that approximately 8,000 children in families receiving food from community markets have been examined and re-examined for the purpose of a physical check-up.

That the system of direct food distribution, which controls the types of food as well as the quantities, has completely justified itself is proved by the reports on this check-up. They show that the youngsters have in the majority of instances been noticeably improved in their physical condition quite apart from the increase in height and weight which naturally accompanies growth.

This is a splendid example of the soundness of the community market plan. Incidentally, controlled diets—within reason of course—would perhaps be of value to thousands of persons if they only had the nerve and will-power to apply them.

NEW BABY CENTERS—Activities of the field personnel of the bureau of child health have resulted in the opening of five new baby centers within the last 30 days, respectively, in Bolivar and Irwin, Westmoreland county; Ernest and Rossiter, Indiana county; and McClure, Fayette county. It was indicated that three additional centers will be opened in the near future in Fayette county.

**Baby Care Means Better Adult Health—The Children at This Clinic are Getting It**

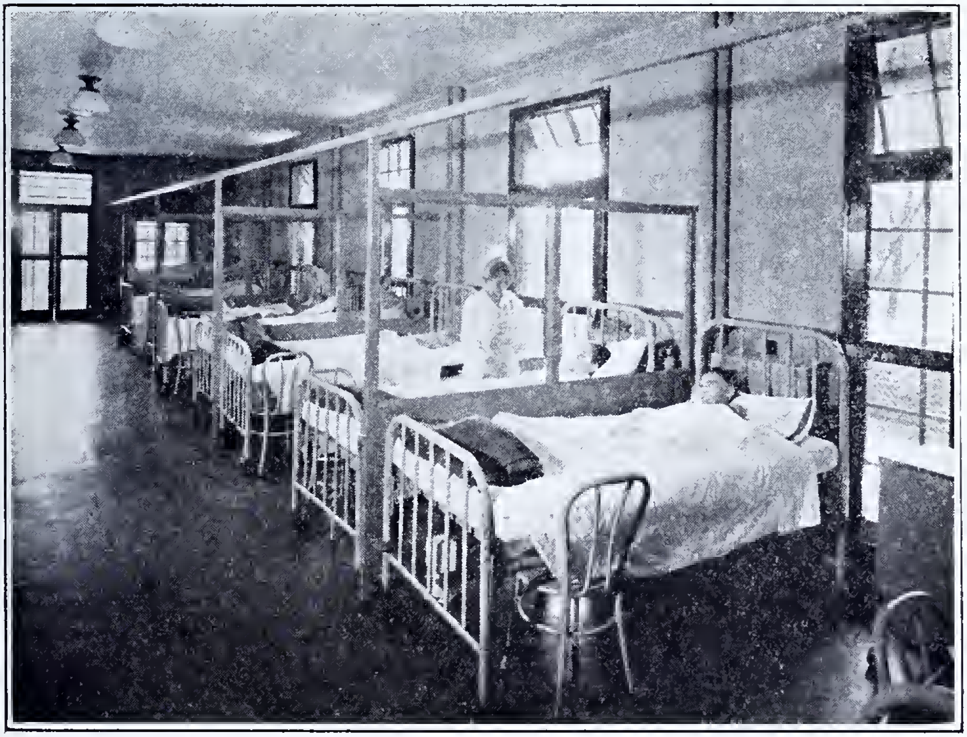
The Department well realizes that if adults are to be protected against many of the disease onslaughts of middle life the protection must begin with the infant. Baby centers, therefore, represent an effective weapon against those conditions which at the present time prematurely slay so many persons of middle life and over.

STATE HEALTH DAY—The second annual State Health Day celebration will take place during the week of November 8th. This campaign, which involves coordinated activities on the part of the State Health Department, the Medical Society of the State of Pennsylvania and county health agencies and allied organizations, is designed to present preventive health information to adults.

Last year, 43 counties in Pennsylvania took part in the celebration, with many thousands of citizens on the receiving end of talks made from the platform and over the radio. Latest reports indicate that the entire State will be covered this year; and in many counties elaborate programs have been set up.

Speakers of the State Health Department who will make addresses during the celebration include Secretary of Health Appel; Deputy Secretary of Health McCreary; Dr. J. Moore Campbell; Dr. Emlyn Jones; Dr. E. S. Everhart; Dr. Mary Riggs Noble; Dr. J. B. Critchfield; Dr. R. H. McCutcheon; Dr. Thomas H. A. Stites; Dr. H. A. Gorman; Dr. Francis S. Chambers; Dr. C. W. Sheldon; Robert F. Brinton, and J. Clarence Funk.

The bureau of public health education has been in charge of the campaign details. Dr. James M. Anders, Philadelphia, is the honorary chairman of the Health Day Committee who, with Secretary of Health Appel, will again direct the celebration.



**The Crippled Children's Hospital is Rendering a Great Service**

CHILDREN'S HOSPITAL BUSY—Ten new patients were admitted to the Crippled Children's Hospital at Elizabethtown within the last 30 days. This brings the hospital up to its present capacity.

The work on the rearrangement of east wing of the hospital has been under way for some weeks. It is estimated that it will be concluded shortly. This will increase the capacity of the institution by 40 beds.

NARCOTIC ACTIVITIES—Thirty-five arrests of leaders in the illegal narcotic traffic have been credited to the Department's bureau of narcotic drug control in the last four weeks. These arrests, based upon evidence obtained by bureau and federal operators, are believed to have dealt a death blow to dangerous narcotic operations recently prevalent in Allegheny, Butler, Washington, Westmoreland and Cambria counties.

H. V. Smith, chief of the narcotic bureau, comments, "For some time an intensive investigation has been conducted by both state and federal narcotic agents. The recent wholesale apprehension included a number of Chinese as well as some of the most notorious underworld characters in western Pennsylvania.

"Due to the World Narcotic Treaty, which controls and limits the manufacture of narcotics and which went into effect on July 10th, there is every indication that a number of foreign narcotic factories have been trying to unload their surplus supply on the United States. Pennsylvania, in common with certain other seaport States, was being made a victim. However, the recent bureau activities in connection with the federal government, have prevented several daring attempts to transport large quantities of raw opium into this jurisdiction.

"Under the League of Nations' pact, which has now been ratified by 36 countries, the board of narcotic control will set strict limits on the amount of narcotic drugs which each nation will be permitted to produce and distribute."

NURSES AND SOCIAL SERVICE—Social service activities of the Department's nurses, which is incidental to their regular duties, included the following activities during the last 30 days: Employment was secured for 70; relief was obtained from Poor Boards and County Commissioners for 154; and 816 were referred to official agencies for assistance.

The report also indicates that a definite reduction in requests for service of this type has occurred during the past few weeks. Resumption of business and increased employment are noted as the causes.

TESTIMONIAL DINNER FOR NURSES—A number of weeks ago the officers of the 103rd Medical Detachment in camp at Mt. Gretna, under the command of Col. Edwin M. Iland, gave a testimonial dinner to six nurses attached to the staff of the Crippled Children's Hospital at Elizabethtown for the emergency work performed by them during the encampment of 1932, when a large number of the members of the Philadelphia City Troop became ill with ptomaine poisoning.

The nurses were entertained at the officers' mess, were tendered a band concert, and were presented with the insignia of the Medical Corps. Reports indicate that it was a very fine occasion indeed.

Those entertained were Miss Naomi Hunter, superintendent of nurses, and the Misses Bessie Mandy, Ethel Blouse, Blanche Hopes, Esther Slick and Eva Yoder.

CRIPPLED CHILDREN'S WORK—Plans have been formulated by the Department to take over all the crippled children's work formerly administered by the Department of Welfare, according to an announcement recently made by the Secretary of Health.

Under the plan, the Department will cooperate with the local organizations now interested in this type of work. The field activities in all sections of the Commonwealth will be coordinated with the State Hospital for Crippled Children at Elizabethtown.

The State eventually will be divided into districts. A local advisory committee, composed of representatives of recognized societies for crippled children, local clinics, and agents of the State, will supervise the work in each district.

Regional or district periodic follow-up clinics will be established in those sections of the Commonwealth where no active clinics are maintained.

Nursing service in connection with this work will be directed by the Department's bureau of nursing. The state nurses will receive special instruction in orthopedic work at the State Hospital for Crippled Children.

Doctor Appel emphasized that, as formerly, much reliance will be placed on the Crippled Children's Society and allied organizations for the discovery and classification of cases needing attention and treatment.

SCHOOL INSPECTION—The annual medical school inspection in the schools of the fourth-class district, supervised by the State Health Department, is now under way. Four hundred and fifty physicians are engaged in this activity. A quarter of the fourth-class schools will be inspected this autumn, involving approximately 180,000 pupils.

NEEDLESS MATERNAL DEATHS—In 1932, the maternal death rate of 5.9 per thousand deliveries was higher than that of 1912, 1928, or 1930, according to an announcement recently released by Dr. Theodore B. Appel, Secretary of Health. On the other hand, the 1,035 maternal deaths were the lowest in Pennsylvania's history.

"The above, which appears to be contradictory, is explained on the low birth rate in 1932," states Doctor Appel. "It does not indicate that child-bearing is safer than formerly. Indeed, the increase in the rate over some of the more immediate past years tells an opposite story.

"This unfortunate condition is to some extent a personal one. Most certainly, it does not lend itself to public health control. Many mothers are needlessly dying today because professional care is lacking during the expectant period. Pre-natal supervision should be sought immediately upon the realization that an expectancy exists. Too frequently physicians are only consulted when the event is pending. While this is only one of the causes of maternal mortality, this careless attitude will have to be overcome if the present high rate is to be reduced."

Prospective parents, please take notice!

# Vital Statistics Comment

## LIVE BIRTHS IN PENNSYLVANIA IN 1932

**Florence Hardy**
*Assistant Statistician*

THERE were 168,553 live births registered in Pennsylvania in 1932. This total and the rate of 17.1 per 1,000 population were the lowest on record. The natality in this State has declined steadily since 1921, when 229,452 births and a birth rate of 25.9 were filed. There has been an annual decrease of approximately 10,000 births since 1928, with the single exception of 1930. Causes which have influenced the downward trend of the birth rate are: the reduction in marriages, the advancing ages of persons married, and the changing economic status of women. And, more recently, the depression experienced in the past three years, unquestionably has contributed to the rapidly lowering rate.

The birth rate in Pennsylvania last year was lower than that of the country as a whole. Since 1915, the rate for the Birth Registration Area in continental United States has fallen from 25.1 to 17.3 in 1932. This decline is true not only of this country but also of many of the European nations. It is possible that if the birth rate continues in its present course, it will coincide with the general death rate within a comparatively short time. The declining birth rate together with the restriction of immigration has resulted in a distinct retarding in population growth.

Of the 168,553 live births reported in Pennsylvania last year, 51 per cent were male and 49 per cent female. For every 100 female births in 1932 there were 105.2 male births. This proportion is not constant from year to year. In 1930, there were 106.2 male births for every 100 female, and in 1928 the ratio was 105.5 to 100. Furthermore, masculinity varies according to the color and race of the mother. In general, masculinity is comparatively low among Negro live births.

There were 8,755 Negro births in the State in 1932. This total constituted 5.2 per cent of the entire natality. According to the 1930 Census, 4.5 per cent of the population of Pennsylvania were Negroes. In addition to the 8,755 Negro infants, there were 48 births listed under races other than white or Negro.

The births which occurred at home far exceeded those in hospitals in 1932. Of the 168,553 total live births, 105,284 or 62 per cent took place at home. In connection with place of birth it is interesting to note that 95.5 per cent of the births were attended by physicians, 3.7 per cent by midwives, and .8 per cent by other persons. In the past three years the births which have been attended by persons other than a physician or midwife have increased from 646 in 1930 to 1,290 in 1931 to 1,403 in 1932.

Legitimate births comprised 97 per cent of the entire number last year. A total of 5,810 illegitimates was recorded which, based on 1,000 live births, is equivalent to a rate of 34.5. This rate shows an increase over 1931 and 1930. The illegitimacy rates in 26 of the 67 counties in Pennsylvania increased over the past two years. A 3 per cent increase in illegitimate births was registered in 1932 over 1930. And, despite a reduction in the total between 1931 and 1932, the rate for last year was higher than that of 1931. The reason for this was the decline in the number of total live births upon which the rate was based.

The following table presents the illegitimacy rates in Pennsylvania counties in 1932. It should be understood that these are crude rates, not corrected for residence of the mother. As in the case of general birth rates, a high illegitimate rate is due often to the fact that many non-resident births occur in hospitals located within the county.

### ILLEGITIMACY RATES IN PENNSYLVANIA COUNTIES: 1932

| | |
|---|---|
| STATE RATE | 34.5 |
| Adams County | 27.6 |
| Allegheny County | 34.5 |
| Armstrong County | 36.9 |
| Beaver County | 16.6 |
| Bedford County | 47.4 |
| Berks County | 45.3 |
| Blair County | 44.1 |
| Bradford County | 29.0 |
| Bucks County | 15.3 |
| Butler County | 20.1 |
| Cambria County | 34.4 |
| Cameron County | 41.2 |
| Carbon County | 31.8 |
| Centre County | 42.1 |
| Chester County | 122.5 |
| Clarion County | 30.9 |
| Clearfield County | 41.7 |
| Clinton County | 41.7 |
| Columbia County | 21.9 |
| Crawford County | 15.9 |
| Cumberland County | 38.3 |
| Dauphin County | 42.8 |
| Delaware County | 30.5 |
| Elk County | 32.2 |
| Erie County | 22.6 |
| Fayette County | 45.4 |
| Forest County | 43.5 |
| Franklin County | 41.5 |
| Fulton County | 78.9 |
| Greene County | 16.6 |
| Huntingdon County | 52.1 |
| Indiana County | 32.9 |
| Jefferson County | 26.5 |
| Juniata County | 40.3 |
| Lackawanna County | 27.4 |
| Lancaster County | 30.1 |
| Lawrence County | 16.8 |
| Lebanon County | 41.0 |
| Lehigh County | 44.6 |
| Luzerne County | 24.2 |
| Lycoming County | 42.5 |
| McKean County | 21.2 |
| Mercer County | 13.8 |
| Mifflin County | 37.1 |
| Monroe County | 41.3 |
| Montgomery County | 24.9 |
| Montour County | 18.3 |
| Northampton County | 23.3 |
| Northumberland County | 34.8 |
| Perry County | 39.4 |
| Philadelphia | 38.9 |
| Pike County | 14.5 |
| Potter County | 17.9 |
| Schuylkill County | 31.6 |
| Snyder County | 32.0 |
| Somerset County | 17.5 |
| Sullivan County | 42.1 |
| Susquehanna County | 22.6 |
| Tioga County | 35.4 |
| Union County | 31.7 |
| Venango County | 28.2 |
| Warren County | 37.9 |
| Washington County | 38.8 |
| Wayne County | 29.7 |
| Westmoreland County | 23.2 |
| Wyoming County | 16.1 |
| York County | 35.5 |

*Note:*—Illegitimacy rates are per 1,000 live births.

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